DOCUMENT RESUME

ED 139 332 HE 008 936

AUTHOR	Cuca, Janet Melei
TITLE	Career Choices of the 1976 Graduates of U.S. Medical Schools. Final Report.
INSTITUTION	Association of American Medical Colleges, Washington, D. C.
SPONS AGENCY	Health Resources Administration (DHEW/PHS), Bethesda, Md. Bureau of Health Manpower.
PUB DATE	May 77
CONTRACT	231-76-0011
NOTE	251p.; Some tables may be marginally legible due to print quality of the original document
EDRS PRICE	MF-$0.83 HC-$14.05 Plus Postage.
DESCRIPTORS	Bibliographies; *Career Choice; Changing Attitudes; *Geographic Distribution; Graduate Medical Education; Graduate Medical Students; Higher Education; Hospitals; *Medical Schools; *Medical Students; Physicians; *Specialization; *Student Characteristics; Student Experience; Student Mobility; Surveys
IDENTIFIERS	College Characteristics; National Intern and Resident Matching Program

ABSTRACT

The interactions and influences of various sociodemographic, experiential, and other factors on the career decisions of medical students are described. Special emphasis is on students' characteristics and career preferences at application, their medical schools, their first graduate year programs, and the hospitals of their first graduate year programs. A data base was constructed for the 13,222 U.S. medical school students who applied to the 1976 National Intern and Resident Matching Program (NIRMP). Relationships were examined between (1) student characteristics and special choice at application, at graduation and change/stability in specialty choice; (2) medical school characteristics and specialty choice at graduation and change/stability in specialty choice; (3) student characteristics and medical school characteristics; (4) hospital characteristics and specialty choice at graduation; and (5) geographic mobility. The bivariate descriptions in this report make it apparent that the factors related to career decision are multiple. A logical sequel to this study would be a multivariate analysis that takes into account the simultaneity of relationships between student and medical school characteristics and career choices. (LBH)

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CAREER CHOICES OF THE 1976 GRADUATES OF U.S. MEDICAL SCHOOLS

FINAL REPORT

Association of American Medical Colleges
One Dupont Circle, N.W., Washington, DC 20036

U.S. Department of Health, Education and Welfare
Public Health Service
Health Resources Administration
Bureau of Health Manpower
Contract No. 231-76-0011

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CAREER CHOICES OF THE 1976 GRADUATES OF U.S. MEDICAL SCHOOLS

JANET MELEI CUCA

Division of Student Studies

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

May 1977

The work upon which this publication is based was supported in part by the Bureau of Health Manpower, Department of Health, Education, and Welfare, pursuant to contract number 231-76-0011. However, any conclusions and/or recommendations expressed herein do not necessarily represent the views of the supporting agency.

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Acknowledgement

This study would not have been possible without the cooperation of the National Intern and Resident Matching Program and its Executive Vice President, Dr. John S. Graettinger.

The purpose of this study was to describe the interactions and influences of various sociodemographic, experiential and other factors on the career decisions of medical students with special emphasis on students' characteristics and career preferences at application, their medical schools, their first graduate year programs and the hospitals of their first graduate year programs.

A data base was constructed for the 13,222 U.S. medical school students who applied to the 1976 National Intern and Resident Matching Program (NIRMP). The record for each student consisted of data on (1) the characteristics and specialty preferences at application to medical school (from the AAMC's Medical Student Information System); (2) the medical school (from the AAMC's Institutional Profile System); (3) the preferred first graduate year program (from the National Intern and Resident Matching Program); and (4) the preferred hospital for a first graduate year program (from the AAMC's Council of Teaching Hospitals 1976 Survey of House Staff Policy).

Relationships were examined between (a) student characteristics and specialty choice at application, at graduation and change/stability in specialty choice, (b) medical school characteristics and specialty choice at graduation and change/stability in specialty choice, (c) student characteristics and medical school characteristics, (d) hospital characteristics and specialty choice at graduation and (e) geographic mobility.

Specialty Choice At Application: Only 58 percent of the students who participated in the NIRMP had had a preference for a particular specialty at application - 28 percent for primary care specialties, 12 percent for surgery and the remaining 18 percent for five other specialties. The 42 percent who indicated no preference tended to be mostly white students and students of higher socioeconomic and academic backgrounds. Proportionally, more women and blacks preferred the specialties of obstetrics/gynecology and public health.

The composite picture of students who preferred family practice at application was one of sex and racial

distributions similar to that of all medical students, but of persons who were somewhat older at matriculation, yet who spent fewer years in medical school, had lower MCAT scores, average GPA's, graduated from undergraduate colleges that were public and less selective, took a somewhat smaller percentage of their undergraduate course hours in science, were from lower socioeconomic backgrounds and were from the South and Midwest, rather than the East or West Coasts.

Those students who preferred surgery and surgical specialties were more likely to have been male, younger at matriculation, to have spent an average number of years in medical school, to have had lower MCAT scores and average GPA's, to have graduated from private colleges and colleges of average selectivity, to have taken a somewhat greater percent of their undergraduate course hours in science, to have majored in the biological and social sciences and to have been from high socioeconomic backgrounds.

Specialty Choice At Graduation: Specialty choices at graduation were: 63 percent for primary care (40 percent for internal medicine, 13 percent for family practice and 10 percent for pediatrics), 16 percent for surgery and the remaining 21 percent for five other specialties and for flexible GME-I programs. While the relationships to student characteristics were, for the most part, similar to those between specialty choice at application and student characteristics, the addition of the large group of students who had been undecided at application caused some differences.

Women continued to demonstrate a preference for obstetrics/gynecology, but, at graduation, showed an equal interest in psychiatry and a greater interest in pediatrics than in either obstetrics/gynecology or psychiatry. Blacks continued to show a preference for obstetrics/gynecology, while "other" minorities showed a preference for pediatrics and whites showed preferences for pathology, family practice, radiology, medical specialties, psychiatry and surgery.

Greater proportions of those students who chose internal medicine, pediatrics, psychiatry, medical specialties and pathology had attended medical schools which are research-oriented, while students who chose family practice and flexible programs had attended schools which are practice-oriented. Medical schools which have smaller components of graduate medical education graduated greater proportions of those students who chose

obstetrics/gynecology and flexible programs and smaller proportions of those students who chose medical specialties and pathology. Smaller, less affluent medical schools and medical schools which were less selective in admissions produced greater proportions of those students who chose obstetrics/gynecology, medical specialties and flexible programs and smaller proportions of those students who chose internal medicine, pediatrics and pathology.

The composite picture of the largest group at graduation, that which chose internal medicine, is the following: they were slightly more often men, either "other" minority or white, similar in age at graduation and in years spent in medical school to the total distribution of students, had above-average MCAT scores and science GPA's, had graduated from private undergraduate colleges and colleges which are selective, were similar to other students in the percent of their undergraduate course hours in science and in undergraduate majors, were of middle to upper socioeconomic background and had attended medical schools which are private, research-oriented, not practice-oriented, larger, more affluent and more selective.

Specialty Choice Stability and Change: Twenty-eight percent of all the NIRMP participants preferred specialties in the same major specialty division at both application and graduation; however, only 14 percent preferred the same specific specialty at both points in time. Of the 58 percent of all NIRMP participants (or 6,851) who had indicated a specialty preference at application, a total of 47 percent chose a specialty in the same major division at graduation. By major division, it was shown that 70 percent of those who had chosen a specialty in the primary care major division at application chose a specialty in the same division at graduation. The comparable figure for obstetrics/gynecology was 21 percent; for surgery, 36 percent; and for "other" specialties, 20 percent.

Some of the more notable differences between students with a stable preference for a particular specialty and students who changed over to a preference for that same specialty at graduation included the following: (1) The group of students who chose primary care after having been undecided was the group with the highest MCAT scores, while students with stable preferences for primary care had relatively low MCAT scores. Also, the group which chose primary care after having been undecided were more often graduates of the "most selective" undergraduate colleges and tended to matriculate in medical school at a somewhat older

age. (2) Students with stable preferences for surgery had parents with the highest median incomes, while those switching to surgery from obstetrics/gynecology had parents with the lowest median incomes. Parents of students who chose surgery after having been undecided had the second highest median income. (3) While one-third of those with stable preferences for obstetrics/gynecology were black, the percent of blacks in those groups who switched to the specialty ranged from 3 to 14 percent.

Student Characteristics and Medical School Characteristics: Certain associations were found to exist between elements of students' backgrounds and the types of medical schools they attended. Foremost among those elements were the student's state of legal residence and the state of his/her undergraduate college, followed by the control and selectivity of his/her undergraduate college. The weakest relationships were found for the elements of specialty preference at application and MCAT scores, while sex, socioeconomic background and areas of intellectual interest seemed not to be related to type of medical school attended.

Residency Hospitals: Hospitals which are university-owned, which have more house staff and bed capacity, which pay the lowest annual stipends to residents and which are located in Regions VIII and X (the Mountain and Northwestern states) are those which were most attractive to students for GME-I programs. The types of hospitals preferred differed by the specialty preferred, but whether this is due to the differential distribution of specialty programs among types of hospitals or to students' personal preferences is not known.

Geographic Mobility: The regional distributions of medical schools, applicants admitted to medical schools, and medical school graduates were similar to that of the U.S. population at the last census; however, the regional distribution of preferred residency-hospitals was not. Very little migration took place at the juncture of medical education between legal residence when accepted and location of the medical school, probably because of the strong residency requirements for admissions; however, migration increased sharply at the juncture between undergraduate and graduate medical education. While much of the migration was between contiguous or proximal regions, regions differed as to degree and direction of migration.

Because the results of the bivariate description of associations between the various factors and career choices

demonstrated a multiplicity of relationships, a multivariate analysis which recognizes the simultaneity of these relationships was recommended as a sequel to the present report.

Career Choices of the 1976 Graduates of U.S. Medical Schools

I. INTRODUCTION

The number of medical schools in the U.S. has increased by 25 during the past 10 years, while the number of physicians which the medical schools graduate annually has increased by almost 6,000 (from 7,743 in 1966-67 to 13,651 in 1975-76).[1] Nevertheless, those concerned with the relationship of physician manpower to health care delivery have become aware that a simple increase in the size of the physician manpower pool will not alone make health care more accessible to those in need. It has become increasingly evident that the specialties and the geographic locations in which physicians practice are factors of equal, if not greater, importance in the delivery of services than that of their sheer number.

Since in a democratic society, physicians are free to decide these matters themselves, it becomes important to discover the nature and strength of those factors which influence their career decisions. This knowledge will permit informed interventions directed towards the shaping of the characteristics of the physician cohorts being produced to meet societal needs. The conventional wisdom, at this time, assumes that it is more costly to attempt to change the characteristics of the already-graduated and practicing manpower pool than to attempt to influence the characteristics of those entering or still a part of the training process. In this context, factors which are related to and can predict the specialty and practice location intentions of medical school entrants and students become of prime concern.

Investigation of factors related to both types of physician career decisions (i.e., geographical and specialty) has been extensive. A recent review of the

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[1] American Medical Association, "Medical Education in the United States, 1975-76," J.A.M.A. 236(26): 2960-2964, December 27, 1976.

literature on practice location includes not only original research on the topic, but previous reviews as well.[2] Of the many variables which the literature has examined for possible influence on physician practice location, only four are concerned with premedical or medical school phenomena - and all four are different aspects of the same dimension, namely, prior exposure to the practice location. A summary of the hypotheses based on these variables and of the number of studies supporting and rejecting the hypotheses is presented in Figure 1.

All of the studies reviewed by Cantwell and Eisenberg relate prior exposure to size of practice community. Hypothesis 4 in the figure seems, on first inspection, not to be concerned with prior exposure; however, if it is true that "higher quality" medical schools tend to be located in urban areas, it may be that exposure to the urban location, rather than the quality of the schools per se, is responsible for the relationship.

Two recent literature reviews[3] summarize the factors which have been found to be associated with specialty choices. A summary of hypotheses and findings derived from Schwartz is presented in Figure 2. These factors may be divided into two types. The first are those which are derived from the student's premedical school background, either psychologic, socioeconomic, or academic, and which become important at the point of his/her being selected for admission to medical school. For example, most medical

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[2] J. R. Cantwell and B. S. Eisenberg, The Spatial Distribution of Physicians: A Literature Review, revised edition (Chicago: American Medical Association, Center for Health Services Research and Development, June 1975).

[3] G. D. Otis, J. R. Graham, and L. Thacher, "Typological Analysis of U.S. Medical Schools," J. Med. Educ. 50(1975): 328-338; and L. E. Schwartz, Medical Specialty Choice: An Analytical Review (Washington, D.C.: American Medical Association, Center for Health Services Research and Development, August 1975).

Figure 1

Findings of Studies on Physician Practice Location Concerned With Premedical and Medical School Variables

Hypothesis	Total Number of Studies	Number Accepting Hypothesis	Number Rejecting Hypothesis	Inconclusive Results	Comments
1. Physicians tend to locate in areas similar to those in which they were reared.	8	5		3	
2. Physicians tend to locate in areas similar in size to those of the medical school they attended.	1	1			Study failed to control for background of students.
3. Training experiences in rural areas will influence physicians to locate in rural areas.	3		3		
4. Students who attend "higher quality" medical schools tend not to locate in rural areas.	1	1			Study failed to control for background of students.

Derived from Cantwell and Schwartz, 1975.

Figure 2

Findings of Studies on Specialty Choice Concerned With Premedical and Medical School Variables

Hypothesis	Total Number of Studies	Number Accepting Hypothesis	Number Rejecting Hypothesis	Inconclusive Results	Comments
1. Academic ability bounds, or is related to, physicians' specialty choice.	13	12	1		Variables included in studies were MCAT scores; class standing; and National Board Scores.
2. Women's career choice depends heavily on sex role	10	8	1	1	
3. Student marital status influences specialty choice	10	8	2		Four of the studies which verify the hypothesis only do so in stating that marriage has a significant effect on the career choices of women, and a less significant impact on the career choices of men.
4. Age at graduation from medical school influences specialty choice	10	9	1		Eight of the nine studies supporting the hypothesis only do so in regards to the high correlation between age and choosing General Practice rather than a specialty.
5. Premedical education influences specialty choice	3	1	2		Study concerning amount of premedical science concentration supported Ho; study concerning public vs private premed education rejected Ho.
6. Home community size influences specialty choice	6	6	0		
7. Father's occupation influences specialty choice	12	4	4	4	
8. Medical school environment influences specialty choice	17	12	5		Variables used in most studies were very specific; therefore results confirm Ho only in terms of a particular aspect of the environment.
9. Form of medical school ownership influences specialty choice	4	4	0		

Derived from Schwartz, 1975.

school admissions committees seem to prefer achievement-oriented, extroverted students with at least average academic credentials from the state in which the medical school is located.*

In organizational terms, it can be said that the various selection or premedical background factors determine the characteristics of the "input" for the physician-production process and thus ultimately influence the characteristics of the "output." The other type of factor which influences specialty choice is that of the production process itself - or, less mechanistically speaking, of medical education, namely the three or four years of medical school which lead to the M.D. degree. While it is undeniable that internship and other graduate training experiences may modify specialty decisions, it would seem that the undergraduate training experience is the more crucial of the two since it is at the end of this period that the student must select the specialty in which he/she will take an internship or residency. Thus, it is this decision regarding the specialty of the first graduate year which determines to a great extent the graduate medical education experiences which the student will undergo and, by extension, his/her ultimate specialty choice.

A. Specialty Choice

The major purpose of this report, then, is to examine the specialty choices of graduating medical students in light of their demographic, socioeconomic, premedical education and medical education characteristics and their specialty preferences at the time of application to medical school. Figure 3 depicts the different sets of variables involved and the temporal relationships among them.

Career choice at graduation is seen as a function of three sets of variables: (A) demographic, socioeconomic, and premedical education characteristics; (B) career preferences at application; and (C) medical school characteristics.

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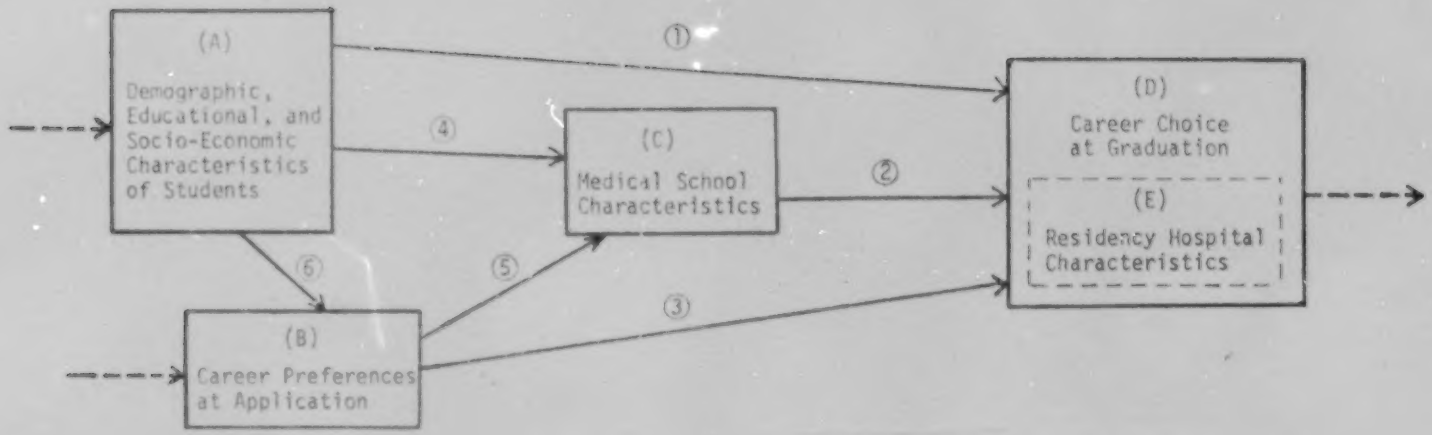
*J. M. Cuca, L. A. Sakakeeny, and D. G. Johnson, The Medical School Admissions Process: A Review of the Literature, 1955-1976 (Washington, D.C.: Association of American Medical Colleges, October 1976).

Figure 3

Relationships Among Sets of Variables in the Present Study



Examination of the relationship indicated will provide information on:

① the characteristics of students preferring various careers at graduation;

② the characteristics of medical schools graduating students with various career preferences;

③ the stability of career preferences and the student and medical school characteristics associated with career choice change/stability;

④ & ⑤ the characteristics and career preferences of students matriculating in different types of medical schools - to assess whether relationship 2 is primarily due to differences in the types of students attending different medical schools or to characteristics of the schools themselves;

⑥ the characteristics of students preferring various careers at application to medical school.

These are the relationships numbered as 1, 2, and 3 in the figure. However, relationship 2 - that between characteristics of the medical school and student career choice - can also be seen as being influenced by selective input to the school, i.e., students with certain characteristics and certain career preferences being attracted to and/or being selected more frequently by certain schools (relationships 4 and 5 in the figure). Furthermore, students' career preferences at application may be seen as influenced by their demographic, socioeconomic, and premedical education background (relationship 6).

Relationship 3 can be regarded either as the influence of one variable (application career choice) on another (graduation career choice) or it can be regarded as a single variable (career choice change/stability). Using it in the latter sense is especially fruitful for shedding light on the relative importance of demographic, socioeconomic, and educational characteristics in influencing graduation career choice. It does so by distinguishing between those individuals whose career choices change and those whose career choices remain stable. Then, the inference which can be drawn from the distinction is that, for students whose preferences change, it is the medical school, or at least some phenomenon or process which occurs at the same time in the student's life/career cycle, which is primarily responsible for the change in career choice. For students whose career choices remain stable, it can be inferred that it is their background or those characteristics which they bring to medical school which exert the greatest influence on their graduation career choices, and that their initial predispositions are either reinforced or unaffected by the medical school which they attend.

B. Residency Hospitals

A second focus of this paper is an examination of the characteristics of those hospitals preferred by medical students for first year residencies in light of students' specialty choices.

The decision which students make regarding their first year of graduate medical education (GME-I) in order to be matched to a first year residency through the NIRMP is actually several decisions. The primary decision is probably that of specialty; but, also involved are considerations regarding the type of first-year program (whether categorical, diversified or flexible) and the type

and location of the hospital in which to take a first-year program. Assessment of the relationship between hospital characteristics and specialty choice will provide information on the extent to which GME-I specialty choice reflects considerations other than specialty.

It will also give an indication of the characteristics of the hospitals preferred by those choosing different specialties. However, this hospital-specialty relationship is partially determined by the simple fact of certain types of hospitals offering more programs in certain specialties. For example, psychiatric residencies are more frequently offered by state hospitals and psychiatric institutes than by other types of residency institutions.

C. Geographic Mobility

The third purpose of this paper will be to examine the geographic mobility of medical students. If prior exposure is an important influence on practice location, examination of regional origins, medical school locations, and preferred residency hospital locations will provide data for forecasting ultimate practice location. Also, examination of origin-to-medical-school mobility and medical school-to-residency mobility will provide information on the extent and timing of regional flows at two points on the medical education continuum.

Similarly, origin-to-residency mobility will be informative about the proportion of students committed to a particular region. If a student who wishes to remain in the region of his origin is accepted only to medical schools in other regions, his first opportunity to return (other than the fairly unusual action of transferring between medical schools) would be at the beginning of residency training. The proportion of those preferring a first-year residency in the region of their premedical origins would include not only the aforementioned groups but also those who never left the region for medical school and who, according to the prior exposure theory, should tend to be even more committed to remaining in the region.

II. METHODOLOGY

The data used in this study to examine factors which may be related to students' career choices were obtained from four data bases: one from the National Intern and Resident Matching Program (NIRMP) and three from the Association of American Medical Colleges (AAMC). Figure 4 presents a list of the variables examined in this report and the data base from which each was obtained. Comprising the NIRMP data base were the ranking lists and the results of "the match" for the 1976 applicants.[5] The AAMC data bases are the Medical Student Information System (MSIS); the Institutional Profile System (IPS); and the Council of Teaching Hospitals' (COTH) 1976 Survey of House Staff Policy. More complete descriptions of each of the four data bases appear in the following sections. Included in the description of the NIRMP data base is a discussion of the rationale for the measure of specialty choice used.

A. Data Sources

(1) NIRMP: The population of medical students upon which this study is based is that of the 13,222[6] students of U.S. medical schools who applied to the 1976 National Intern and Resident Matching Program (NIRMP). By matching two sets of rankings, the NIRMP annually places students graduating from medical school in a first-year residency program. One

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[5] In recognition of the confidentiality of the NIRMP data, procedures which should safeguard the privacy of NIRMP applicants were agreed upon by Dr. John S. Graettinger, Executive Vice President of NIRMP, and Dr. John A. D. Cooper, President of the AAMC (correspondence, July 14, 1976). These procedures include a pre-release review of this study by Dr. Graettinger.

[6] This total is one less than that reported by Graettinger and results from the elimination of one applicant whose incorrect social security number prevented computer matching of his NIRMP and MSIS records (J. S. Graettinger, "Graduate Medical Education Viewed from the National Intern and Resident Matching Program," J. Med. Educ. 51(9); 703-715, 1976).

set of the NIRMP rankings is based on listings supplied by students of their preferences for first-year residency programs. The other set is based on rankings supplied by the hospitals of the students they would like to accept to their first-year programs. Through an intricate system initiated in 1951, the two rank-order lists are matched.[7]

Of the 13,222 students who applied to NIRMP in 1976, 11,728 remained in "the match" (1,494 either withdrew their applications, failed to return a rank-order list, listed an invalid program number as their first choice or "X-ed" all choices, i.e., indicated they did not want to apply to any of the programs they had originally listed).[8] Fifty-one percent of those in "the match" were matched to the program they most preferred; 15 percent were matched to their second choice; 9 percent to their third choice; 17 percent to their fourth (or lower) choice; and 8 percent were not matched to any program.

In 1974, the first year of graduate medical education was redesignated: the term "internship" was eliminated to emphasize the integration of the first graduate year with subsequent years; straight internships and residencies were replaced by "categorical" and "categorical *" (or diversified) programs; and the rotating internship was replaced by the "flexible" program.[9] The three types of programs are described as follows:

> a. Categorical First Year - These are first-year programs planned, sponsored, and conducted by a single approved residency program as part of that residency. The content of such a first year will be limited to the specialty field of the sponsoring residency program.

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[7] American Medical Association, Directory of Approved Internships and Residencies: 1974-75 (Chicago: American Medical Association, 1975), pp. 100-102.

[8] The table in Appendix A lists the number of NIRMP participants and applicants graduated by each medical school.

[9] American Medical Association (see footnote above).

b. Categorical * First Year - The asterisk designates a first year program that will be planned, sponsored, and supervised by a single, approved residency program as part of that residency's program of graduate medical education, the content of which will not be limited to the single specialty of the sponsoring residency program but may include experience in two or more specialty fields as determined by the sponsoring program.

c. Flexible First Year - The first year will be sponsored by two or more approved residencies and will be jointly planned and supervised by the residencies that sponsor it. Such a first year is designed to give a broad clinical experience for (1) students who feel the need for this type of first year; (2) program directors who feel that such an experience will best serve the purpose of subsequent graduate education in their field; and (3) students who have not yet decided on their specialty but may wish to choose among several fields during their first graduate year. The content of a flexible first year must include four months of internal medicine, but the remainder of the year may be designed in accordance with the purpose of the two or more sponsoring residency programs, and the interests and needs of the student.[10]

Since the primary interest of this paper is in the specialty area of the residency program rather than in the program type (as defined above), categorical and diversified (categorical *) programs in the same specialty area have been grouped together for this analysis. Since flexible programs, by definition, cannot be characterized by a single specialty, they remained a separate group.

Table 1 shows the percentage of students preferring a program in a particular specialty who were successful in being matched to a program in that specialty. It is worth pointing out here that although a student may have been

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[10] American Medical Association (see footnote on page 10).

Table 1

U.S. Medical School Graduates Participating in the 1976 NIRMP:
Type and Specialty of GME-I Program Preferred and Program to Which Matched

Type and Specialty of Program to Which Matched	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Medical Specialties*	Obstetrics Gynecology	Pathology	Pediatrics	Psychiatry	Radiology	Surgery and Specialties†	Flexible
Categorical or Diversified											
Family Practice	1,345	82.5	0.6	0.0	0.6	0.0	0.0	0.0	0.0	0.1	1.2
Internal Medicine	4,070	1.7	83.9	9.1	1.5	0.0	0.2	0.3	2.4	0.5	5.3
Medical Specialties*	60	0.0	0.1	80.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Obstetrics/Gynecology	575	0.0	0.2	1.5	83.6	0.0	0.0	0.0	0.0	0.0	1.3
Pathology	235	0.0	0.1	0.0	0.0	97.0	0.0	0.3	0.0	0.0	0.2
Pediatrics	1,107	0.4	0.2	1.5	0.0	0.0	95.8	0.0	0.5	0.0	0.8
Psychiatry	382	0.2	0.1	0.0	0.0	0.0	0.1	95.6	0.0	0.0	0.5
Radiology	205	0.2	0.1	0.0	0.0	0.0	0.0	0.0	91.7	0.2	0.6
Surgery and Specialties†	1,814	0.1	0.3	0.0	0.5	0.4	0.0	0.0	0.0	93.6	2.7
Flexible	988	4.8	3.1	3.0	3.9	0.4	0.6	0.3	2.9	2.6	78.7
UNMATCHED	947	10.2	11.1	4.5	10.0	2.1	3.3	3.6	2.4	2.9	8.8
TOTAL	11,728	1,573	4,728	66	663	235	1,128	386	205	1,888	856

* Medical Specialties include: Dermatology, Neurology, Physical Medicine and Rehabilitation.

† Surgical Specialties include: Anesthesiology, Neurosurgery, Ophthalmology, Orthopedic Surgery, Otolaryngology and Urology.

matched to a program in the same specialty area as was the program which he/she most preferred, it does not necessarily follow that he/she was matched to the particular program in that specialty which he/she most preferred. For example although a student's first choice may have been the internal medicine program at Hospital A, he/she may have been matched to the internal medicine program at Hospital B. Although only 51 percent were matched to their first choice program, as stated previously, 87 percent were matched to a program in their first choice specialty (as calculated from Table 1).

The data of Table 2 show that the proportion of students choosing programs in each specialty remained about the same across the rankings or choices. What those same data do not tell is whether it is the same individuals whose choices remained consistent across rankings, e.g., whether the same 13.08 percent who picked family practice as their second choice are included in the 13.41 percent who picked that field as their first choice. However, the fact that, in addition to the 51 percent of NIRMP applicants who were matched to their first-choice programs, another 36 percent were matched to second or subsequent-choice programs in their first-choice specialty attests to the consistency of specialty preferences across rankings.

This study will concentrate on specialty choice, i.e., the specialty of the program ranked highest by the student, rather than on the specialty of the program to which the student was actually matched. The major justification for doing so is that for present purposes, it is a truer measure of preference than is the specialty of the program to which the student was matched. The latter is influenced by factors which are not attributable to either the student or the medical school - for example, the number of programs offered in the specialty and the number of higher-ranked applicants for programs in the specialty - thus introducing what, for present purposes, may be termed random variance or "noise."

Since the correspondence between the specialty of the "first choice" and the specialty of the "matched" program (as presented in Table 1) is substantial and since the specialties of applicants' rankings (as presented in Table 2) are highly consistent, there is a considerable degree of commonality between the two possible measures, i.e., "first-choice" program specialty and "matched" program specialty. This commonality will facilitate integration of the results of the present study with studies, both completed and

Table 2

U.S. Medical School Graduates Participating in the 1976 NIRMP:
Types and Specialty Areas of GME-I Program Choices

Type and Specialty Area of First-Graduate-Year Program Choices	First Choice		Second Choice		Third Choice		Fourth Choice		All Choices	
	N	%	N	%	N	%	N	%	N	%
Categorical and Diversified										
Family Practice	1,573	13.41	1,428	13.08	1,354	13.19	1,214	13.06	9,183	11.94
Internal Medicine	4,728	40.31	4,655	42.64	4,550	44.33	4,279	46.03	37,265	48.46
Medical Specialties*	66	0.56	25	0.23	15	0.15	6	0.06	162	0.21
Obstetrics/Gynecology	663	5.65	595	5.76	562	5.47	486	5.23	3,674	4.78
Pathology	235	2.00	195	1.79	164	1.60	144	1.55	1,035	1.35
Pediatrics	1,128	9.62	1,083	9.92	1,012	9.86	942	10.13	7,523	9.78
Psychiatry	386	3.29	205	1.88	156	1.52	102	1.10	1,098	1.43
Radiology	205	1.75	148	1.36	119	1.16	83	0.89	769	1.00
Surgery and Specialties†	1,868	15.93	1,635	14.98	1,505	14.66	1,342	14.44	10,498	13.65
Flexible	856	7.30	957	8.77	828	8.07	698	7.51	5,687	7.40
TOTAL	11,728	99.99	10,916	100.01	10,265	100.01	9,296	100.00	76,894	100.00

* Medical Specialties include: Dermatology, Neurology, Physical Medicine and Rehabilitation.

† Surgical Specialties include: Anesthesiology, Neurosurgery, Ophthalmology, Orthopedic Surgery, Otolaryngology and Urology.

projected, by other investigators of career choice and of changes in career choice during and after residency training.

The cohort of students for this study, namely the U.S. medical school applicants to the 1976 NIRMP, closely matches the total population of 1976 graduates of U.S. medical schools. It has been estimated that the latter group totals 13,505[11] while the group under study numbers 13,222 and constitutes 98 percent of the 1976 U.S. medical school graduates, according to Graettinger.[12] The difference of 283 consists of graduates who for various reasons are either delaying or not taking the usual graduate medical training.

The primary focus of the study is on the 11,728 students who remained in the matching program, although both the premedical (demographic, socioeconomic, and education) characteristics and the medical school characteristics of the NIRMP withdrawal group are also examined.

(2) MSIS: The data on students' demographic, socioeconomic, and premedical education characteristics came from the AAMC's Medical Student Information System (MSIS). While MSIS incorporates data from various sources, the major portion consists of data supplied by the student when he or she 1) takes the Medical College Admission Test (MCAT), 2) completes the associated MCAT questionnaire and 3) applies to medical school via the AAMC's American Medical College Application Service (AMCAS).

Since the persons in the present cohort are the 1976 graduates and the majority would have entered medical school four years previously, in the fall of 1972, they would have applied to medical school and have taken the MCAT at least one year earlier, in calendar year 1971. At that time, 58 of the 112 U.S. medical schools were participating in AMCAS,

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[11]American Medical Association (see footnote on page 1).

[12]J. S. Graettinger, "NIRMP," (Letter to the Editor) J. Med. Educ. 52(2): 176, 1977.

i.e., requiring applicants to use the AMCAS system, and 78 percent of that year's medical school applicants applied through AMCAS.[13]

The applicant participation rate is greater than the school participation rate because applicants to non-AMCAS schools, for the most part, applied to AMCAS schools as well. Thus, the response rate to most of the items from the AMCAS subsystem of MSIS is fairly high. MCAT-score data are even more complete than AMCAS data, since 99.1 percent of acceptees to the 1972-73 class took the MCAT.[14] However, the optional premedical data on demographic, socioeconomic, and educational background which are derived from the questionnaire which was completed at the time of taking the MCAT vary in completeness, with the least complete data items based on responses from about 75 percent of the cohort.

For some items it is possible to infer whether the non-respondents are a non-random subset of the whole cohort. For example, responses to the racial/ethnic identification item totaled only 82.8 percent, with only 71.5 percent of the total cohort identified as white and 11.3 percent (or 1,592) as minority (see Table 5), while Dubé and Johnson[15] reported that, of 13,667 students enrolled in the 1972-73 first year class, only 1,437 or (or 10.5 percent) were minorities. This unexpected increase in the number of minorities from the 1972 entering class to the 1976 graduating class may perhaps be due to "repeaters" not offset by an equal number of dropouts. In any case, it seems safe to conclude that the actual proportion of minorities does not exceed the 11.3 percent obtained in the present study and, therefore, that the majority of non-respondents were white/Caucasian.

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[13] W. F. Dubé and D. G. Johnson, "Study of U.S. Medical School Applicants, 1972-73," J. Med. Educ. 49(1974): 849-869.

[14] W. F. Dubé, "Applicants for the 1972-73 Medical School Entering Class," (Datagram) J. Med. Educ. 48(12): 1161-1163, 1973.

[15] Dubé and Johnson (see footnote above).

Another reason for assuming that non-respondents were white concerns the format of the 1971 MCAT Questionnaire from which the racial/ethnic identity information were derived. The identity item was preceded by the following paragraph:

> NOTE - Answers to questions 8 through 10 will be used, in addition to the research purposes stated above, to determine eligibility for the Medical Minority Applicant Registry (Med-MAR) which is designed to provide an opportunity for any medical school applicant belonging to a minority group underrepresented in the study and practice of medicine to have his name, address, age, state of residence, college major and type of minority group circulated to all U.S. Medical Schools.

It seems highly probable that, being ineligible for Med-MAR, many whites did not answer questions 8 through 10. Question 9 was the item concerning racial/ethnic identity.

For other MSIS items with lower response rates, such as "father's education" which has a response rate of 80 percent, it is not possible to infer whether non-respondents are mostly from a single category, since comparison data do not exist. Dubé and Johnson,[16] for example, report information on "father's education" for only 83 percent (or 8,507) of the 10,249 applicants who were accepted for the 1972-73 entering class and whose MCAT scores and GPA's were known. However, that 83 percent response rate, of necessity, was based only on a subset (10,249) of the total number of students enrolled in the 1972-73 first-year class (13,667). As a percentage of the entire entering class, the response rate turns out to be only 62 percent and sheds little light on the non-respondents to this particular item of the present study. The MSIS data elements which have response rates of 85 percent or less are racial/ethnic identification, undergraduate science GPA, undergraduate overall GPA, undergraduate college location, percent of undergraduate course hours in science, parental income,

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[16] W. F. Dubé and D. G. Johnson, Medical School Applicants, 1972-73: Supplementary Tables (Washington, D.C.: Association of American Medical Colleges, 1974). (DDS Report No. 74-1)

father's and mother's education, father's and mother's occupation, and specialty preference at application.

The response to another MSIS data element, namely that of specialty choice at application, also requires some explication. Until the fall 1971 administration of the MCAT and of the questionnaire which accompanies it, "family practice" was not listed as a specialty in the question on specialty choice. Since approximately 80 percent of the students in the cohort for this study took the MCAT prior to the fall 1971 administration, the 948 indicating a specialty preference for "family practice" were from the approximately 20 percent (or about 2,350) students taking the MCAT at the fall 1971 and subsequent administrations. Obviously, then, this number is an underestimate of the actual preference for family practice at application. An idea of the magnitude of the underestimate can be obtained by comparing the distributions of application specialty choices of the present cohort and of the applicants accepted for the 1973-74 entering class,[17] the class which entered medical school the year following that in which the majority of those in the study cohort did and for which there are data available on specialty preference from the same version of the MCAT questionnaire. Of the 13 response categories to the question on specialty preference, only two were discrepant between the two distributions by more than one or two percentage points: (1) 8.1 percent of the study cohort preferred family practice, while 17.6 percent of the 1973-74 acceptees did and (2) 14.9 percent of the study cohort gave no response to the question, while only 4.6 percent of the 1973-74 acceptees did. The discrepancy in both cases is approximately 10 percentage points and, while it does not, of course, affect the results concerned with specialty choice at graduation; it does affect the results having to do with stability/change in specialty choice. The effect is such that the percentage of those with stable preferences for primary care and of those dropping primary care is underestimated, while the percentage of those shifting from an "undecided" position is overestimated.

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[17] W. F. Dubé and D. G. Johnson, Medical School Applicants, 1973-74: Supplementary Tables (Washington, D.C.: Association of American Medical Colleges, 1976). (DDS Report No. 76-1)

Original plans for this report had included analysis of data elements concerned with marital status at application, citizenship, degrees held, type of career preferred and type of practice preferred. It was discovered that data on marital status were not available, while the distributions of "citizenship" and "degrees held" were such that almost all of the group were U.S. citizens and held the bachelor's degree. Exclusion of the last two items, type of career preferred and type of practice preferred, was due to the lack of similar data collected at graduation, without which analysis of application preferences makes little sense.

Other MSIS data elements which are being used in the present study but which do not originate from AMCAS, MCAT, or the MCAT questionnaire subsystems are: undergraduate college control, location and enrollment,[18] and undergraduate college selectivity.[19]

(3) IPS: The data used to institutionally characterize and describe the medical schools from which the students received their M.D. degrees were extracted from the AAMC's Institutional Profile System (IPS). IPS is comprised of data collected primarily by means of various annual and occasional questionnaire surveys of the medical schools and of their alumni. Those data extracted from IPS for this study were from the 1973-74 AAMC-AMA Liaison Committee on Medical Education (LCME) Questionnaire, Part I only; from the 1973-74 AAMC Curriculum Directory Questionnaire; and from the AMA publication Medical School Alumni.[20]

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[18]National Center of Education Statistics, U.S. Department of Health, Education and Welfare, Educational Directory, 1974-75 (Washington, D.C.: U.S. Government Printing Office, 1975).

[19]I would like to thank Dr. Albert J. Williams, Jr., Director of the Health Sciences Program of The Rand Corporation, for graciously providing us with a computer tape of these ratings (Barron's Profiles of American Colleges, 10th ed. (Woodbury, N.Y.: Barron's Educational Series, Inc., 1972)).

[20]American Medical Association, Medical School Alumni (Rockville, Md.: Aspen Systems Corp., 1975).

While data from the LCME and Curriculum Directory questionnaires are available for other years, it was decided to use the data for the 1973-74 academic year, since these data would reflect the status of the medical school during a student's second year. Although it was considered unlikely that a school's status on any of the data elements would have changed much from one year to the next, the second-year data were believed to be most characteristic of the school's status during the first three years when students in four-year programs are most likely to be in full-time residence (rather than off-campus taking electives at other institutions) and when students in three-year programs are in residence.

Two IPS data elements, institutional control and location, were used with no modification; however, the remaining elements were statistically combined into five factors to represent the dimensions of a) research orientation, b) practice orientation, c) emphasis on graduate medical education, d) size/affluence, and e) selectivity. The technique used to obtain the factors was a series of five principal components factor analyses (without iteration). For each of the five sets of variables one principal component was extracted from an input correlation matrix which contained unities in the diagonal.[21] The result of such a technique is a simple linear combination of the input variables and therefore requires no assumptions about their general structure.

The variables which were entered into each factor analysis are those listed in items 3-7 under medical school characteristics in Figure 4. The variables and method of combination were chosen in an attempt to (1) replicate the more consistent findings of previous efforts to develop a typology of medical schools (see Figure 5), and also to (2) develop descriptive dimensions of medical schools which intuitively have relevance for students' specialty choices.

(4) COTH: Data on the characteristics of those hospitals offering the first-year residency programs which had been listed by one or more of the 11,728 NIRMP participants as their first choice were obtained from the

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[21] N. H. Nie et al., Statistical Package for the Social Sciences, 2nd ed. (New York: McGraw-Hill, 1975).

Figure 4

Career Choices of the 1976 Graduates of U.S. Medical Schools: List of Variables

Student Characteristics (MSIS)

1. Demographic Characteristics:
   a. sex
   b. racial/ethnic identity
   c. legal residence at application (state and region)
   d. age at matriculation
   e. age at graduation

2. Educational Characteristics:
   a. years from medical school matriculation to graduation (years in medical school)
   b. MCAT - Verbal score
   c. MCAT - Quantitative score
   d. MCAT - Science score
   e. MCAT - General Information score
   f. undergraduate science GPA
   g. undergraduate overall GPA
   h. undergraduate college - control
   i. undergraduate college - enrollment
   j. undergraduate college - selectivity
   k. undergraduate college - location (state and region)
   l. percent of undergraduate course hours in science
   m. undergraduate major

3. Socio-Economic Characteristics:
   a. parents' gross annual income (parental income)
   b. father's education
   c. mother's education
   d. father's occupation
   e. mother's occupation

4. Specialty Preference at Application

Medical School Characteristics (IPS)

1. Medical School Control (public or private)

2. Location (state and region)*

3. Research Orientation:†
   a. percent of faculty who are full-time
   b. percent of budget expended for research
   c. percent of faculty without M.D.
   d. joint Ph.D.-M.D. program offered
   e. percent of total faculty who are in the basic sciences

4. Practice Orientation:†
   a. family medicine program
   b. ambulatory care program
   c. percent of clinical sciences faculty who are part-time
   d. percent of graduates in general practice
   e. percent of graduates in a specialty

5. Emphasis on Graduate Medical Education:†
   a. ratio of graduate and postdoctorate students to medical students
   b. ratio of interns and residents to medical students
   c. ratio of other students instructed by medical faculty (excluding graduate and postdoctorate students) to medical students
   d. ratio of medical students to medical faculty

6. Size/Affluence:†
   a. number of medical students
   b. number of other students
   c. number of salaried (full and part-time) faculty
   d. dollar amount of total budget

7. Selectivity:†
   a. mean MCAT scores of first-year students
   b. percent of first-year students with premed GPA = A
   c. percent of medical students who are out-of-state residents
   d. effect of career intent on admission decision

Career Decisions (NIRMP and COTH)

1. First-Choice Residency Program - Specialty (NIRMP)

2. Matched Residency Program (NIRMP):
   a. type of program
   b. specialty of program

3. First-Choice Hospital Characteristics (COTH):
   a. medical school affiliation
   b. ownership
   c. house staff size
   d. bed complement
   e. stipend level
   f. attractiveness

* This data element came from MSIS, although it is also available from IPS.

† A factor score statistically derived from the variables listed.

Figure 5

Studies of Types of Medical Schools

	Richards, Rand and Rand (1968)	Rodgers and Elton (1974)	Keeler et al. (Rand, 1972)	Sherman (AAMC, 1975)	Nunn and Lain (AAMC, 1975)	Otis, Graham and Thacker (1975)
Years of Data:		1969-70; 1970-71	1969-70	1973-74; 1974-75	1972-73; 1973-74	1970-71; 1971-72; 1972-73
Number of Medical Schools:		86	94	117	99	107
Number of Variables:	28	14	31(c)	350(52)	6 factors resulting from Sherman's analysis	350
Statistical Techniques:	Factor Analysis	Factor Analysis	Factor and Cluster Analysis	Two Stages of Factor Analysis	Two Stages of Cluster Analysis	Cluster Analysis
Results:	Four Factors: 1. Affluence 2. Size 3. Hospital Training Emphasis 4. Canadian vs. U.S. Admissions Practices	Three Factors: 1. Private/Public Control 2. Size (Affluence) 3. Graduate Emphasis	Six Factors: 1. Graduate Medical Education Program 2. Private/Public Control 3. Non-M.D Education Programs 4. Non-Full-Time Faculty 5. Federal Research Involvement 6. M.D. Education Program	Eighteen Factors After Second Analysis: 1. Size 2. Private/Public Control 3. Academic vs. Clinical Medicine Emphasis 4. Faculty Salaries The remaining factors were either statistically frail or composed of a single variable	Although the most optimal solutions would yield 18 and 9 clusters, 16 clusters were derived in an attempt to replicate Keeler's clusters	Five Dimensions: 1. Size 2. Eminence 3. Clerkship vs. Basic Science Requirements 4. Elective Emphasis 5. Service vs. Science Funding
Secondary Analysis:		Spatial Configuration comparison of schools	Ten groups (or types) of schools derived by cluster analysis of scores on the 6 factors	In a preliminary analysis, Keeler's six factors were replicated with 23 variables as input	Profiles based on high, mean and low scores on each of the six factors are depicted for each of the 16 clusters	Combinations of Dimensions Scores yielded 10 types of schools which, then, were related to careers of 1960-64 graduates

1976 Council of Teaching Hospitals' (COTH) Survey of House Staff Policy.[22] While not all of the hospitals which offered one or more of the first-choice or preferred residency programs were COTH members, it has been estimated that 70 to 80 percent of all residents are in COTH hospitals.[23] The total number of hospitals with a preferred program was 505 and 235 of them were COTH hospitals. These 235 COTH hospitals were the first choice of 69.2 percent (or 8,116) of the NIRMP participants. Thirty (30) of the 235 COTH hospitals did not provide information on every characteristic herein examined.

An index of the "attractiveness" of each hospital to the NIRMP applicants was devised in order to determine whether attractiveness is a function of any of the hospital characteristics being examined. It was calculated as a ratio, the numerator being the number of participants who selected a program at the hospital as their first choice and the denominator being the number of positions offered by the hospital in all of its programs. These attractiveness indices ranged from a high of 4.75 to a low of 0.03 - or from almost 5 applicants preferring each residency place offered by a hospital to essentially no applicants preferring a hospital's residency places.

B. Statistical Analysis

Because of the constraints imposed by limited time and resources on the type of analysis which could be conducted, the present study is basically a first exploration of an unique, newly-constructed data base. The emphasis, therefore, has been on a descriptive inventory of the data base rather than on refined statistical analysis. Actually, the inventory approach should be the first stage in any research with new data; but, by presenting the data in terms

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[22]Association of American Medical Colleges, COTH Survey of House Staff Policy and Related Issues, 1976 (Washington, D.C.: Association of American Medical Colleges, Council of Teaching Hospitals, 1976).

[23]Based on data from the AAMC's Council of Teaching Hospitals and the American Hospital Association.

of all possible categories, it also works against the discovery of consistent relationships among variables.

The logical sequel to inventory type research then, is analysis at a higher level, based not only upon more sophisticated statistical techniques which take into account the simultaneity of relationships between variables, but also based upon data aggregation or likely combinations of categories which are indicated by the first-stage descriptive inventory. From the various surveys of the literature, it seems safe to conclude that the present study is the sole current national examination of medical student career choices. It would be shortsighted not to finish the task begun, not to build upon the present work through the conduct of causally-explanatory, multivariate analyses.

The scaling of the various data elements has also determined the statistical approach taken. The dependent variables, i.e., specialty choice, geographic location and certain of the residency hospital characteristics, as well as some of the independent variables such as sex, race, institutional control, etc., are based on nominal categories. Nominal measurement, because it simply differentiates among categories instead of ranking or measuring in units of equal size, is therefore the weakest type of measurement and restricts the type of statistic which can be employed to examine relationships or test hypotheses.

Although the chi-square statistic is one which is appropriately used when both the independent and the dependent variables are based on nominal data, it is strictly applicable only for making inferences from samples to population. The data of the present study could be interpreted as pertaining either to the population of 1976 U.S. medical school graduates or to the 1976 sample from the population of recent medical school graduates. In either case, the number of persons for whom there are data (11,728 NIRMP participants or 13,222 NIRMP applicants) is sufficiently large that even miniscule deviations in the actual data from that which would be expected by chance alone will result in a significant chi-square.

Two other statistics for nominal data and for which computer programs were readily available[24] were Cramer's V and the uncertainty coefficient. Cramer's V is a statistic based on the chi-square which eliminates the influence of sample size and reduces the influence of table size (the product of the number of categories in the independent and dependent variables). Because it ranges from 0.0 to 1.0, it indicates the degree, but not the direction, of association between the variables. Although it does not indicate the manner in which the variables are related, inspection of the tabulated data generally resolves this difficulty. The uncertainty coefficient gives "the proportion by which 'uncertainty' in the dependent variable is reduced by knowledge of the independent variable."[25] This statistic also ranges from 0.0 to 1.0.

Both of these statistics were calculated between each independent variable regardless of its type (nominal, ordinal or interval) and the dependent variable, specialty choice. The use of statistics appropriate for nominal data on ordinal or interval data is not erroneous although it does not take advantage of the greater precision of the latter types of data. It was done, in the present case, to facilitate comparisons from variable to variable. Calculations were based on cross tabulations which excluded the categories of "unknown," "no response," or "withdrew from NIPMP." These categories represent a lack of data on either or both the independent and the dependent variables, and their inclusion in the computation of the statistics would obscure the relationship of interest. Because these statistics are influenced by the number of categories of the variables being examined, they were used only as general guides to the presentation and discussion of the data and have not been reported.

The data which have been presented are the percentage distributions of the various student, medical school and hospital characteristics. For the two parts of the study where the focus is on career decisions and specialty choice, i.e., Specialty Choice and Residency Hospitals, the

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[24] N. H. Nie et al. (see footnote on page 20).

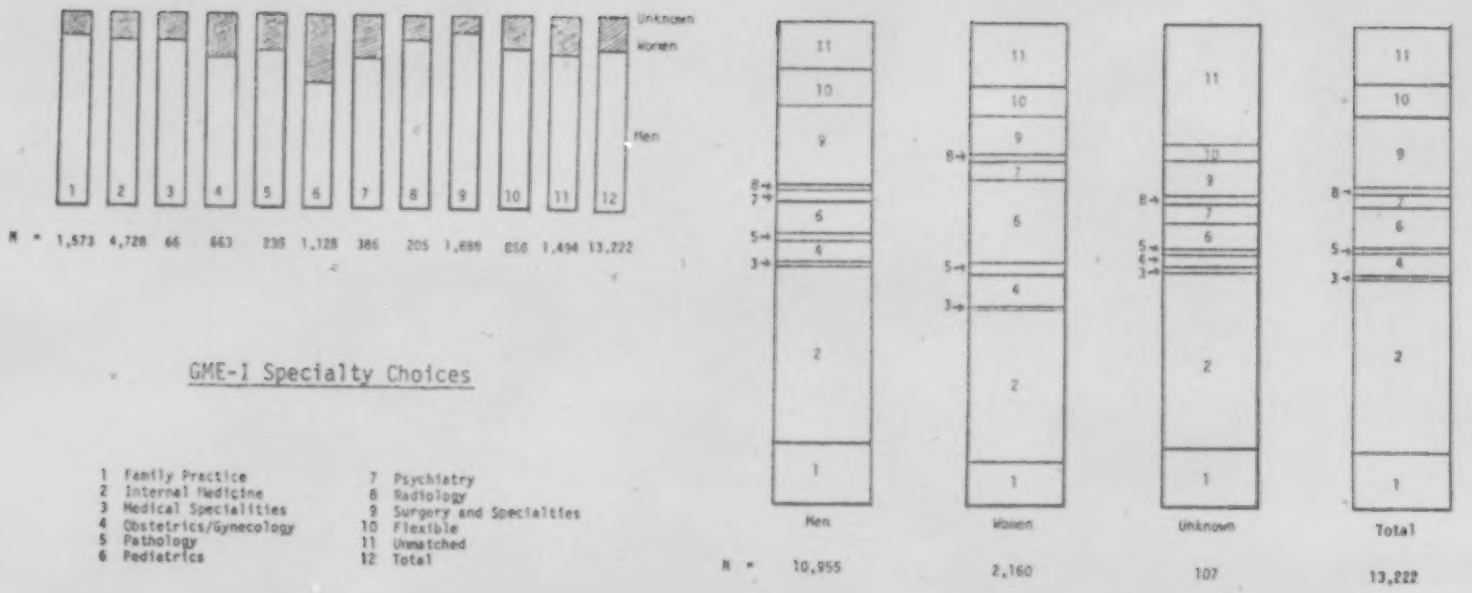
[25] N. H. Nie et al. (see footnote on page 20).

percentages were calculated on the basis of the total number choosing a particular specialty. In other words, column percentages, or the proportions of the group which chose a particular specialty falling into each category of what for the present are considered the independent variables, were reported. For example, in the first section of Table 4 (page 29), the column percentages show that, of the 948 students who preferred family practice at application, 85 percent were male and 15 percent were female. For selected independent variables of special interest (sex, racial/ethnic identity and parental income), the proportions of those within a particular category of that variable who chose the different specialties (or row percentages) are reported in Appendix B. An example of the latter is the percentage distribution of specialty choices of men. For a graphic illustration of the distinction between column and row percentages, see Figure 6.

The percentages reported in the section which focuses on geographic mobility were calculated with reference to regional groups distinguished on the basis of the locations of (1) legal residence at the time of application, (2) medical school attended and (3) residency-hospital preferred.

Figure 6

Examples of Column Versus Row Percentages of GME-I Specialty Choices by Sex



III. RESULTS AND DISCUSSION

Specialty choice, geographic location and type of residency hospital are different aspects of a the single decision taken by a graduating medical student participating in NIRMP regarding his/her first year of graduate medical education (GME-I). Accordingly, this Results and Discussion chapter is divided into three parts, each focusing on one of these three aspects of GME-I career decisions.

The first part, on specialty choice, is subdivided into sections on (1) specialty preferences at application, (2) specialty preferences at graduation and (3) changes in specialty preferences from application to graduation. The discussion will be in terms of student and medical school characteristics. This part will also examine the relationships, if any, between student premedical background (demographic, socioeconomic, educational and specialty preference) and medical school characteristics. If these relationships appear to be stronger than those between characteristics of the student's medical school and the student's GME-I specialty choice, it would indicate that the differential student input into medical school resulting from self-selection and admission policies has had a greater influence on GME-I specialty choice than have characteristics of the medical school.

The second part of this section will examine characteristics of residency hospitals. It will also consider the probable interaction of the three separate aspects of the GME-I career decision enumerated above. Since the choice of specialty probably has a greater influence on both hospital type and hospital location than either of the latter have on specialty choice or on each other, this second part of the results and discussion section will examine hospital type and location in relation to specialty choice.

The third part of the Results and Discussion section will focus on geographic mobility. It will do so in terms of the regional locations of an individual's premedical legal residence, of his/her medical school and of his/her preferred residency hospital.

A. Specialty Choice

Table 3 presents a summary of specialty choices at application, specialty choices at graduation and application-to-graduation changes in specialty choice for those participating in the 1976 NIRMP. Before proceeding to the presentation and discussion of results for each of the three subtopics, attention should be paid to several striking elements of Table 3. First, it can be seen that almost 70 percent of those who chose a primary care specialty at application did not abandon that major specialty division at graduation, but again chose a primary care specialty. Only about half that percentage (36 percent) stayed with an initial preference for surgery, and only about 20 percent of the individuals who chose obstetrics/gynecology (ob/gyn) or psychiatry at application also chose it at graduation. Fifty-three percent of those who indicated a preference at application changed their preference, while 72 percent of all the NIRMP participants made a specialty choice at graduation which they had not made at application.

For the most part, then, the group choosing a major specialty division at graduation is not composed of the same individuals as the group choosing that same area at application. For example, the group of 16.1 percent choosing surgery and surgical specialties at graduation includes only 4.2 percent who chose the same general specialty division at application. The section on change and stability in specialty choice which appears later in this chapter discusses in greater detail the characteristics of those with stable and changed specialty preferences.

Part of this dissimilarity in the individual composition of groups choosing the same major specialty division at application and at graduation is, of course, due to the recruitment to all specialty groups of those who were in the application major specialty division labeled "undecided." These people constituted 42 percent of all NIRMP participants. The primary care major specialty division, which retained a greater percentage of students (69.8 percent) than did any of the other three major specialty divisions, also recruited a greater percentage of its students (43.6 percent in all, with 26.7 percent of those in the primary care major division at graduation recruited from those initially undecided). It must also be kept in mind that these data are grouped by major specialty divisions, thus those data which pertain to retainment or "no change" do not reflect shifts in specialty choice within

Table 3

U.S. Medical School Graduates Participating in the 1976 NIRMP:
Specialty Preferences at Application and Graduation*

Major Specialty Divisions	Specialties	Application	Graduation	All Participants: Application to Graduation No Change	All Participants: Application to Graduation Change	All With Preferences for a Specialty at Application: Application to Graduation No Change	All With Preferences for a Specialty at Application: Application to Graduation Change	Percent of Those Who Chose Major Specialty at Application Who Chose Same Major Specialty at Graduation
All Students		(11,728)	(11,728)	(11,728)		(6,851)		
	Do not plan to specialize	5.2						
Primary Care	Family Practice	8.1	13.4	19.7		33.7		69.8
	Internal Medicine	6.9	40.3					
	Pediatrics	8.0	9.6					
Obstetrics/ Gynecology	Obstetrics/Gynecology	2.5	5.6	0.5		0.9		20.8
Surgery	Surgery and Specialties	11.9	16.1	4.2		7.3		35.7
Other	Psychiatry	4.2	3.3					20.3
	Public Health	3.6						
	Basic Medical Sciences	3.2						
	Other	4.9		3.3		5.6		
	Medical Specialties		0.6					
	Pathology		2.0					
	Radiology		1.8					
	Flexible		7.3				52.6	
						100.0		
Undecided	Plan to specialize	9.7						
	Undecided	17.0						
	No response	14.9			72.3			
		100.0	100.0	100.0				

* Application-only categories are indented once; graduation-only categories are indented twice; categories identical at application and at graduation are not indented.

a major division. For example, a change from family practice to internal medicine is reflected as "no change" for the primary care major division. Keeping in mind, then, that the groups choosing certain specialties at graduation are generally not composed of the same individuals as are those groups choosing the same specialties at application, let us proceed to examine the characteristics of the different specialty-preference groups.

1. Specialty Choice at Application

It was pointed out in the section on statistical methodology that an inventory approach to analysis, by including all the categories which were originally used to collect the data for the variables being examined, diminishes the likelihood of finding statistically significant overall relationships. However, that fairly strong relationships do exist can be seen more clearly when the data themselves are examined, as in Table 4. It is obvious, for example, that the sex distribution of those preferring surgery is quite different from that of the total group: 95.6 percent male and 4.4 percent female preferring surgery versus 83.2 percent male and 16.1 percent female in the total group. The same is true of those preferring ob/gyn, pediatrics and public health, but in the opposite direction with women preferring those specialties.

It is, then, the comparison of the distribution of a subgroup preferring a particular specialty to the distribution of the total group (or to that of groups preferring other specialties) which provides more information regarding the association between two variables, in the present instance, than do statistics. The latter summarize an entire bivariate crosstabulation and in so doing, eradicate any trace of opposing trends. Fortified with this observation, then, we shall proceed to point out the more outstanding trends in Table 4 between students' premedical background characteristics and their specialty preferences at application.

For purposes of information, Table 4 presents the percentage distributions for six variables, namely, science and overall GPA's, percent of course hours in science, parental income, education and occupation, based on all NIRMP participants. For purposes of discussion, however, it also presents (in italics) percentages for the same six variables calculated on the basis of respondents only, rather than of the total group. Since non-respondents

Table 4

U.S. Medical School Graduates Participating in the 1976 NIRMP: Percentage Distributions of Student Premedical Background Characteristics for Specialty Preferences at Application

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
1. All Students*	11,728	948	815	289	934	487	1,391	424	379	573	1,132	611	1,999	1,746
2. Sex														
Male	83.2	85.1	85.2	68.5	70.7	82.3	95.6	68.2	86.5	82.2	79.3	85.1	86.1	82.7
Female	16.1	14.9	14.8	31.5	29.3	17.7	4.4	31.8	13.5	17.8	20.7	14.9	13.9	12.5
Unknown	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
3. Racial/Ethnic Identity														
Afro-American/Black	5.1	5.4	6.7	21.8	7.2	5.3	5.2	11.8	4.5	3.7	3.5	3.6	2.5	3.7
American Indian	0.3	0.4	0.2	0.0	0.3	0.0	0.5	0.7	0.5	0.0	0.0	0.7	0.3	0.2
Asian-American/ Oriental	0.5	0.7	0.9	0.7	1.1	0.4	0.5	1.4	0.3	0.3	0.4	0.7	0.4	0.1
Caucasian/White	71.5	76.7	78.0	64.7	76.1	81.5	81.7	68.9	79.7	83.4	83.5	83.1	84.5	21.5
Hispanic-American	2.4	1.7	2.5	3.1	3.2	2.5	2.8	6.1	4.7	2.3	2.5	2.3	2.0	1.1
Other	3.0	4.0	4.4	4.5	4.4	1.8	3.6	3.8	3.2	3.8	2.7	2.5	2.2	1.2
Unknown	17.2	11.1	7.2	5.2	7.7	8.4	5.8	7.3	7.1	6.5	7.3	7.2	8.3	72.3
4. Age at Matriculation														
20 years and under	4.2	4.6	3.4	3.8	4.9	4.1	5.8	4.2	2.9	3.5	5.3	3.1	4.5	2.8
21 - 22	58.4	50.4	56.0	53.6	63.9	55.4	62.5	47.6	55.1	53.9	63.6	59.2	64.6	53.3
23 - 24	19.5	21.4	17.7	21.5	18.5	23.8	19.6	25.9	19.8	20.9	18.6	20.5	19.9	15.9
25 - 26	8.5	10.5	11.2	9.3	6.3	8.6	7.6	11.3	9.5	10.8	6.4	8.0	6.0	10.5
27 - 28	4.2	6.6	5.0	4.2	3.4	5.1	2.7	5.2	6.9	4.2	3.0	5.1	2.7	5.2
29 - 30	2.3	3.4	3.4	3.1	1.8	1.8	1.3	2.8	2.9	2.8	1.7	1.3	1.4	3.3

* The figures in this row are frequencies rather than percentages.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
4. Age at Matriculation (continued)														
31 - 32	1.0	0.8	2.0	1.7	0.4	0.2	0.4	1.7	1.1	2.3	0.7	1.0	0.4	2.0
33 - 34	0.6	0.9	0.6	1.0	0.3	0.4	0.1	0.5	0.5	0.7	0.4	1.0	0.5	1.0
35 years or more	0.6	1.2	0.6	1.7	0.2	0.4	0.0	0.7	1.3	0.7	0.3	0.8	0.2	1.3
Unknown	0.7	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	4.8
Mean Age	22.9	23.3	23.3	23.3	22.6	22.9	22.5	23.3	23.3	23.3	22.6	23.0	22.6	23.5
5. Years in Medical School														
2 years	2.1	0.9	0.2	0.7	1.1	1.4	1.1	2.4	1.3	0.9	1.1	0.7	1.0	7.9
3 years	12.5	27.2	12.8	12.5	13.2	13.8	12.4	12.3	14.2	11.9	11.2	11.0	11.4	6.2
4 years	79.7	71.1	82.1	75.1	80.7	79.3	81.6	82.1	77.3	81.3	82.5	83.8	83.8	73.4
5 years	3.6	0.0	3.9	10.4	4.3	4.7	4.0	2.8	4.5	4.2	4.4	4.1	3.4	2.6
6 years or more	1.4	0.7	0.5	1.4	0.7	0.8	0.9	0.5	2.6	1.7	0.7	0.5	0.5	4.8
Unknown	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
Mean Years	3.9	3.8	3.9	4.0	4.0	3.9	3.9	3.9	4.0	4.0	3.9	3.9	3.9	4.0
6. MCAT - Verbal Score														
701 - 800	3.9	2.5	5.4	2.4	3.6	7.0	2.4	4.7	4.2	3.1	4.8	2.8	5.2	3.2
601 - 700	33.1	27.2	36.7	26.6	31.9	45.6	28.1	38.2	37.7	36.1	36.4	31.1	37.4	27.5
501 - 600	36.1	38.3	33.6	38.1	39.3	32.9	39.2	34.0	34.6	38.0	38.4	41.6	37.3	28.5
401 - 500	20.1	28.0	20.5	24.6	22.1	13.3	25.5	19.6	19.8	20.9	17.7	21.3	18.1	15.1
301 - 400	3.2	4.0	3.8	7.6	3.7	1.2	4.7	3.1	3.7	1.7	2.7	3.3	2.1	3.0
201 - 300	0.1	0.0	0.0	0.7	0.3	0.0	0.1	0.5	0.0	0.0	0.1	0.0	0.0	0.0
Unknown	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
Mean Score	564.0	546.2	568.9	539.0	558.2	595.4	545.5	570.2	569.6	569.4	573.1	557.3	574.4	565.0

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application											
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
7. MCAT - Quantitative Score														
701 - 800	13.9	5.0	13.4	7.6	13.0	15.6	11.4	10.1	18.5	17.6	17.9	12.8	18.0	13.6
601 - 700	44.6	43.0	44.8	33.6	45.5	51.3	46.3	40.1	47.8	48.9	47.7	45.5	50.1	33.7
501 - 600	29.0	37.4	30.4	34.6	30.7	26.7	31.3	34.0	25.3	25.5	28.4	32.2	26.4	23.7
401 - 500	7.8	11.9	9.3	18.7	9.4	5.3	9.6	12.7	6.6	7.9	5.3	8.3	4.7	5.6
301 - 400	1.3	2.2	2.0	4.5	1.3	1.0	1.3	3.1	1.6	0.2	0.6	1.1	0.9	0.7
201 - 300	0.1	0.4	0.1	1.0	0.1	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.1
Unknown	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
Mean Score	615.2	585.6	610.0	567.2	610.1	625.2	609.2	594.8	626.5	625.4	628.5	610.9	630.9	621.9
8. MCAT - Science Score														
701 - 800	5.0	4.7	6.6	1.7	3.4	5.1	4.2	4.2	7.7	7.3	6.4	2.8	6.2	4.1
601 - 700	36.0	30.8	38.2	24.2	35.3	35.9	36.2	28.8	40.4	40.1	39.4	38.0	41.2	30.4
501 - 600	42.0	46.6	41.8	43.6	44.2	43.5	42.3	49.1	41.4	41.9	42.3	46.0	42.8	33.2
401 - 500	11.8	15.4	11.2	21.8	14.7	13.3	15.0	13.4	9.5	9.4	10.7	11.8	9.0	8.6
301 - 400	1.8	2.1	2.1	8.0	2.4	2.1	2.2	4.5	1.1	1.2	1.1	1.3	0.9	1.0
201 - 300	0.1	0.3	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1
Unknown	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
Mean Score	580.3	568.5	583.2	540.1	570.7	579.0	574.5	565.4	593.4	590.4	589.5	577.6	590.8	583.0
9. MCAT - General Information Score														
701 - 800	3.1	2.6	3.2	2.1	2.1	5.3	1.9	4.2	3.4	3.5	3.9	1.5	3.8	2.9
601 - 700	26.9	20.1	30.7	19.7	26.4	41.3	20.6	31.1	31.1	27.6	29.8	26.2	30.2	23.4
501 - 600	44.2	45.1	41.1	41.9	45.2	41.7	48.5	42.0	41.7	47.3	46.9	48.6	46.7	35.9
401 - 500	20.6	30.0	22.2	29.4	23.7	10.7	26.1	20.5	22.2	20.4	18.0	21.9	18.7	13.5

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
9. MCAT - General Information Score (continued)														
301 - 400	1.9	2.1	2.8	6.9	2.6	1.0	2.9	2.1	1.6	1.2	1.4	1.8	0.7	1.6
201 - 300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Unknown	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
Mean Score	558.4	540.4	558.4	530.5	551.8	568.1	543.2	565.8	563.7	560.7	565.3	554.0	566.5	565.9
10. Undergraduate Science GPA*														
3.8 - 4.0	12.1	10.1	11.5	6.9	12.8	10.3	10.5	8.5	15.8	12.4	13.3	13.3	16.2	9.7
3.4 - 3.79	25.2	25.6	24.5	22.8	24.5	21.6	23.8	25.2	26.9	27.4	29.9	25.0	29.0	20.0
3.0 - 3.39	23.4	26.3	25.2	23.5	27.6	27.9	25.0	20.8	18.7	22.9	21.6	24.4	24.0	18.3
2.6 - 2.99	10.5	12.2	11.5	14.5	11.7	15.2	11.1	17.5	11.9	9.2	7.9	11.1	7.9	8.6
2.0 - 2.59	4.9	7.3	5.9	5.9	4.8	5.5	5.4	8.5	5.3	6.6	2.7	3.6	3.7	4.0
Below 2.0	0.8	0.7	1.0	1.4	1.0	1.0	0.9	1.9	0.5	1.0	0.7	0.8	0.3	0.6
Unknown	23.2	17.7	20.4	24.9	17.6	18.5	23.3	17.7	20.8	20.4	24.0	21.8	19.1	38.9
Mean GPA	3.3	3.3	3.3	3.2	3.3	3.2	3.3	3.2	3.4	3.3	3.4	3.3	3.4	3.3
3.8 - 4.0	*24.6*	*20.3*	*14.6*	*9.8*	*18.8*	*12.6*	*13.7*	*10.3*	*20.0*	*15.6*	*17.4*	*16.9*	*20.0*	*16.8*
3.4 - 3.79	*33.2*	*31.2*	*30.8*	*30.4*	*29.7*	*26.4*	*31.0*	*40.7*	*34.0*	*34.4*	*39.3*	*32.0*	*36.8*	*32.8*
3.0 - 3.39	*30.8*	*32.9*	*31.0*	*32.5*	*33.5*	*34.5*	*32.6*	*25.2*	*25.7*	*28.7*	*28.4*	*31.2*	*29.7*	*29.9*
2.6 - 2.99	*14.5*	*14.8*	*14.6*	*19.4*	*14.2*	*18.6*	*14.5*	*13.2*	*15.0*	*13.6*	*10.3*	*14.2*	*9.7*	*14.1*
2.0 - 2.59	*6.8*	*8.8*	*7.4*	*7.8*	*5.8*	*6.8*	*7.2*	*10.3*	*6.7*	*8.2*	*3.6*	*4.6*	*4.5*	*6.8*
Below 2.0	*1.2*	*0.9*	*1.6*	*1.8*	*1.8*	*1.3*	*1.1*	*2.3*	*0.7*	*1.5*	*0.9*	*1.0*	*0.4*	*0.9*
11. Undergraduate Overall GPA*														
3.8 - 4.0	8.0	6.4	7.1	4.8	8.1	8.0	6.3	5.2	11.1	9.6	9.7	9.0	10.8	6.3
3.4 - 3.79	29.5	28.6	29.4	27.3	29.3	29.4	28.4	25.9	32.2	30.0	33.7	30.3	34.1	23.3

* Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
11. Undergraduate Overall GPA (continued)														
3.0 - 3.39	27.3	28.5	29.0	28.0	32.8	32.9	28.7	29.2	23.0	27.1	25.6	29.0	27.5	21.0
2.6 - 2.99	10.9	14.6	11.5	14.2	12.2	11.7	11.7	16.7	13.2	11.5	8.0	10.1	8.9	8.5
2.0 - 2.59	4.1	4.1	6.3	8.0	3.4	4.3	4.6	8.0	4.5	4.7	2.9	3.3	2.8	3.5
Below 2.0	0.2	0.1	0.2	0.7	0.0	0.0	0.4	0.2	0.5	0.3	0.1	0.0	0.1	0.3
Unknown	20.0	17.2	16.4	17.0	14.1	13.8	19.9	14.6	15.6	16.8	20.0	18.3	15.9	37.1
Mean GPA	3.3	3.3	3.3	3.2	3.3	3.3	3.3	3.2	3.3	3.3	3.4	3.3	3.4	3.3
3.8 - 4.0	*9.4*	*7.8*	*8.8*	*6.8*	*9.6*	*9.2*	*7.8*	*6.1*	*13.1*	*11.5*	*12.1*	*11.0*	*12.8*	*10.0*
3.4 - 3.79	*35.9*	*34.7*	*36.2*	*33.9*	*34.3*	*34.0*	*36.5*	*30.4*	*34.7*	*36.3*	*40.1*	*37.1*	*40.5*	*37.0*
3.0 - 3.39	*34.6*	*34.6*	*34.7*	*33.6*	*38.3*	*38.1*	*35.8*	*34.3*	*30.3*	*33.4*	*32.0*	*33.3*	*32.7*	*23.3*
2.6 - 2.99	*14.3*	*17.7*	*13.9*	*17.3*	*14.2*	*13.8*	*14.6*	*19.6*	*16.8*	*15.8*	*10.0*	*12.4*	*10.6*	*13.6*
2.0 - 2.59	*5.5*	*5.0*	*7.5*	*9.6*	*4.0*	*6.0*	*5.7*	*9.4*	*5.3*	*5.7*	*5.6*	*6.0*	*5.5*	*5.6*
Below 2.0	*0.3*	*0.1*	*0.3*	*0.8*	*0.0*	*0.0*	*0.5*	*0.3*	*0.6*	*0.4*	*0.1*	*0.0*	*0.1*	*0.5*
12. Undergraduate College - Control														
Public	46.8	57.2	47.5	47.8	45.0	38.4	45.7	43.6	46.4	46.8	44.5	50.4	43.6	49.7
Private	50.3	41.1	49.6	49.1	53.0	58.5	52.3	55.2	52.0	51.1	53.1	46.5	54.0	43.9
Unknown	2.9	1.7	2.9	3.1	2.0	3.1	2.0	1.2	1.6	2.1	2.4	3.1	2.4	6.5
13. Undergraduate College - Enrollment														
Less than 500	0.4	0.6	0.6	0.3	0.5	0.0	0.3	0.0	1.1	0.5	0.4	0.3	0.5	0.2
500 - 999	3.0	2.6	2.3	4.2	3.3	1.8	3.0	3.3	4.5	2.6	3.2	2.6	3.3	2.8
1,000 - 2,499	12.3	13.0	11.3	13.1	14.2	12.7	11.6	11.3	9.8	14.3	11.2	15.4	13.6	10.0
2,500 - 4,999	8.8	10.1	9.4	8.7	8.9	9.9	8.8	9.4	9.5	7.5	9.0	10.6	8.3	7.2
5,000 - 9,999	19.3	16.6	19.6	21.8	16.8	20.7	20.3	16.5	19.8	18.7	19.5	19.6	19.5	20.9

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
13. Undergraduate College - Enrollment (continued)														
10,000 - 19,999	15.8	15.5	16.3	12.8	18.3	12.3	18.5	17.2	16.1	15.7	18.2	14.4	14.9	13.1
20,000 or more	31.9	36.1	31.4	32.2	29.8	32.9	30.6	34.9	32.5	31.4	29.9	29.8	33.1	31.8
Unknown	8.5	5.5	9.0	6.9	8.1	9.7	6.9	7.3	6.9	9.2	8.6	7.2	6.9	14.0
14. Undergraduate College - Selectivity														
1. Non-Competitive	4.7	8.2	4.3	7.6	5.1	4.1	3.1	6.8	4.2	5.2	3.4	3.6	4.8	4.2
2. Less Competitive	6.5	10.3	8.2	13.1	5.5	3.7	7.1	5.4	6.6	5.4	4.9	8.3	4.8	6.5
3. Competitive	26.9	33.2	26.3	28.7	26.2	18.7	28.5	21.0	26.9	27.7	26.5	34.5	25.2	24.6
4. Competitive	8.0	10.1	6.5	8.3	7.5	6.0	9.8	6.8	6.9	11.0	8.2	9.0	7.8	6.4
5. Very Competitive	15.1	13.8	13.7	11.8	17.3	15.0	14.5	15.1	15.3	12.4	14.3	14.4	15.6	17.4
6. Very Competitive	8.8	6.9	8.2	6.9	10.1	9.9	8.4	9.9	8.4	7.7	7.9	8.8	10.1	9.2
7. Highly Competitive	10.4	6.8	13.0	8.0	10.2	15.6	9.5	13.7	8.2	13.3	12.3	7.7	12.6	7.1
8. Highly Competitive	5.1	3.9	3.9	3.8	7.4	5.1	6.0	7.8	5.0	4.5	6.6	3.1	5.5	3.4
9. Most Competitive	9.4	4.1	9.6	6.9	7.0	16.6	9.2	10.6	15.6	8.9	11.0	5.7	10.2	9.9
Unknown	5.0	2.6	4.2	4.8	3.7	5.3	4.0	2.8	2.9	3.8	4.9	4.7	3.5	11.4
Mean Selectivity	4.8	4.1	4.8	4.2	4.8	5.6	4.8	5.1	5.0	4.8	5.1	4.4	5.0	4.8
15. Percent of Undergraduate Course Hours in Science*														
81% or more	1.1	1.2	0.6	0.3	1.2	1.0	1.3	0.9	2.4	2.6	1.5	0.7	0.8	0.6
71% to 80%	7.0	7.2	7.2	5.9	6.2	3.7	8.4	5.0	12.1	9.2	7.6	5.9	7.3	5.4
61% to 70%	21.4	21.0	22.3	21.8	20.8	11.3	23.6	15.6	22.7	24.3	23.0	25.2	23.9	17.4
51% to 60%	24.1	26.1	25.2	26.6	26.6	22.6	24.4	24.3	24.5	21.1	22.3	25.2	25.3	20.8
41% to 50%	12.3	12.4	11.5	13.5	16.3	15.8	10.9	18.6	10.0	12.9	12.2	11.9	12.5	9.3
31% to 40%	6.2	5.6	6.7	3.8	6.4	14.4	5.0	9.4	5.0	5.4	4.9	7.0	6.5	5.2

* Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
15. Percent of Undergraduate Course Hours in Science (continued)														
21% to 30%	3.3	5.2	4.0	2.4	2.9	8.2	2.2	6.6	1.6	3.1	3.3	1.6	3.6	1.8
20% or less	1.4	3.6	2.0	0.3	1.8	4.5	0.6	1.7	0.8	0.9	1.2	0.7	1.0	0.7
Unknown	23.3	17.8	20.4	25.3	17.7	18.5	23.4	17.9	20.8	20.4	24.0	21.8	19.1	38.9
Mean Percent	55.2	53.8	54.6	56.1	54.4	47.9	57.2	50.9	56.7	57.2	56.3	56.2	55.5	55.9
81% or more	1.6	1.4	0.8	0.6	1.4	1.3	1.7	1.1	3.0	3.2	2.0	0.8	1.0	0.8
71% to 80%	9.2	8.7	9.1	7.9	7.5	4.6	11.0	6.0	15.2	11.6	10.0	7.5	9.0	9.9
61% to 70%	27.4	25.6	28.0	29.5	25.2	18.9	31.1	18.0	39.7	30.5	30.5	25.3	24.6	19.4
51% to 60%	30.9	31.7	31.8	35.6	32.5	27.7	31.8	39.6	31.0	26.2	29.4	32.0	31.2	34.1
41% to 50%	18.4	16.2	14.8	16.1	18.8	19.4	14.2	20.7	12.7	16.2	16.0	16.3	16.6	16.2
31% to 40%	8.0	8.8	8.5	6.1	7.8	17.6	6.5	11.5	4.5	6.8	6.4	9.0	8.6	8.4
21% to 30%	4.6	6.5	6.1	3.5	3.6	10.1	3.9	6.0	3.0	3.9	4.3	5.2	4.5	5.9
20% or less	3.7	4.4	3.5	0.6	2.4	5.5	0.8	2.9	1.0	1.1	1.6	0.8	2.5	2.1
16. Undergraduate Major														
Biological sciences	44.3	47.8	43.8	55.7	49.1	26.9	50.8	50.2	44.6	45.0	46.5	48.6	44.8	32.6
Physical sciences, and mathematics	21.0	17.6	24.8	18.3	18.4	15.2	20.3	15.3	34.8	29.8	24.7	21.8	24.0	14.6
Humanities, languages and the arts	4.0	4.1	4.8	2.8	3.9	8.6	2.9	6.4	2.6	2.3	3.6	2.9	5.2	2.7
Social sciences	6.9	9.0	6.5	5.2	7.7	5.7	9.4	5.4	5.3	4.9	6.7	7.2	7.1	5.0
Premedical	9.7	11.3	10.2	5.9	11.3	33.3	7.5	14.9	4.7	5.9	7.9	7.4	9.8	6.5
Other	8.7	3.5	5.3	6.2	6.5	6.2	5.2	3.3	5.3	7.5	4.9	5.9	4.0	29.8
Unknown	5.4	6.8	4.7	5.9	3.0	4.1	4.0	4.5	2.6	4.5	5.5	6.2	5.2	8.8

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
17. Parental Income*														
Less than $5,000	5.6	8.5	7.6	15.6	6.7	6.8	6.0	7.3	7.4	7.2	3.4	7.7	4.4	0.7
$5,000 to $9,999	12.8	17.8	14.1	19.4	16.8	15.6	13.7	15.6	18.7	14.3	12.3	19.0	11.7	1.7
$10,000 to $14,999	19.5	23.9	21.2	19.0	23.3	20.5	21.4	24.5	27.7	23.6	21.8	24.2	21.5	2.7
$15,000 to $19,999	13.2	11.7	16.0	13.1	16.3	12.5	14.7	15.6	15.8	16.1	16.3	14.4	16.9	1.5
$20,000 or more	27.1	28.6	30.9	25.3	26.3	34.5	36.7	27.4	21.6	29.5	35.7	26.5	33.6	2.9
Unknown	21.9	9.4	10.2	7.6	10.5	10.1	7.5	9.7	8.7	9.4	10.6	8.2	12.1	90.4
Median Income	15,463	13,953	15,615	12,954	14,541	15,819	16,744	14,543	13,523	15,081	17,228	13,969	16,314	14,426
Less than $5,000	*7.8*	*9.4*	*8.5*	*16.9*	*7.8*	*7.6*	*6.4*	*8.1*	*8.1*	*7.9*	*3.6*	*8.4*	*4.9*	*7.8*
$5,000 to $9,999	*17.7*	*19.7*	*16.7*	*31.0*	*18.6*	*17.4*	*14.8*	*17.2*	*20.5*	*16.8*	*13.7*	*20.7*	*13.3*	*17.4*
$10,000 to $14,999	*26.9*	*26.4*	*23.6*	*20.6*	*26.1*	*23.8*	*23.3*	*27.2*	*30.3*	*26.9*	*24.4*	*26.4*	*24.3*	*26.7*
$15,000 to $19,999	*18.4*	*13.2*	*17.8*	*14.3*	*18.3*	*13.9*	*15.9*	*17.2*	*17.3*	*17.7*	*18.2*	*15.2*	*19.2*	*18.2*
$20,000 or more	*38.2*	*31.3*	*34.4*	*27.3*	*29.4*	*38.4*	*39.6*	*30.3*	*23.7*	*32.6*	*39.9*	*29.2*	*38.3*	*30.1*
18. Father's Education†														
Eighth grade or less	5.0	7.5	5.0	3.7	7.3	6.2	5.0	8.0	7.1	5.2	4.2	8.3	3.9	0.5
Some high school	4.8	6.0	5.4	13.1	6.4	5.5	5.5	3.8	6.6	5.8	5.1	5.7	4.3	0.5
Completed high school	12.7	17.1	14.2	14.2	16.3	12.5	14.6	13.7	16.1	13.4	13.1	16.0	14.5	1.7
Technical training	2.9	4.6	4.2	4.8	2.4	3.7	3.0	4.0	5.3	3.8	2.7	3.8	2.4	0.3
Some college	11.3	13.9	12.0	10.7	11.5	12.1	13.7	10.4	10.3	12.0	13.0	11.9	14.9	1.9
Completed college	14.6	17.3	15.7	13.8	17.8	15.6	16.0	17.7	15.0	16.2	16.9	18.2	18.3	1.4
Graduate or professional school	28.1	29.6	32.9	27.0	30.7	32.6	33.6	34.4	30.6	33.	35.8	26.5	33.9	3.3
Other	0.8	0.9	1.5	0.3	0.4	0.8	1.0	0.7	0.8	1.4	0.9	1.0	1.0	0.0
Unknown	19.8	3.0	8.3	7.3	7.3	10.9	7.5	7.3	8.2	8.9	8.4	8.5	7.1	90.4

* Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970. Percentages in italics exclude non-respondents.

† Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do not Plan to Specialize	Undecided	No Response
18. Father's Education (continued)														
Eighth grade or less	*6.8*	*7.7*	*6.3*	*9.3*	*7.9*	*6.9*	*5.4*	*8.7*	*7.8*	*6.7*	*4.6*	*9.1*	*4.2*	*6.4*
Some high school	*6.4*	*6.2*	*5.9*	*14.3*	*6.9*	*7.2*	*5.9*	*6.1*	*7.2*	*6.3*	*5.8*	*6.3*	*4.6*	*5.4*
Completed high school	*16.9*	*17.6*	*16.5*	*15.3*	*17.6*	*19.1*	*15.6*	*16.8*	*17.1*	*14.3*	*14.3*	*17.1*	*15.6*	*17.3*
Technical training	*3.9*	*4.6*	*4.6*	*3.3*	*3.3*	*4.1*	*3.3*	*4.3*	*3.7*	*4.2*	*3.9*	*4.1*	*3.5*	*3.9*
Some college	*13.4*	*14.3*	*13.1*	*11.6*	*13.4*	*13.6*	*14.9*	*17.3*	*17.3*	*13.3*	*14.3*	*13.1*	*16.0*	*10.2*
Completed college	*17.9*	*17.8*	*17.1*	*14.9*	*18.2*	*17.6*	*17.3*	*19.1*	*16.4*	*17.8*	*18.4*	*13.9*	*16.6*	*14.3*
Graduate or professional school	*34.7*	*30.6*	*34.9*	*30.1*	*33.1*	*31.6*	*38.0*	*27.1*	*33.3*	*36.4*	*39.1*	*35.0*	*36.4*	*34.5*
Other	*1.0*	*1.0*	*1.1*	*1.4*	*0.8*	*0.9*	*1.2*	*0.9*	*0.9*	*1.4*	*1.7*	*1.1*	*1.1*	*0.0*
19. Mother's Education*														
Eighth grade or less	3.7	4.7	5.2	9.0	3.6	4.5	4.1	6.1	7.9	3.5	3.1	5.2	3.0	0.5
Some high school	4.4	5.2	4.7	9.0	7.6	4.1	5.7	6.1	6.3	4.9	4.2	5.7	3.2	0.6
Completed high school	22.2	27.8	26.9	23.5	27.5	23.4	24.3	21.2	24.0	22.9	25.1	28.3	26.2	2.8
Technical training	5.5	8.0	7.6	6.6	5.8	5.1	7.0	5.2	5.8	6.6	5.7	8.0	5.4	0.6
Some college	15.4	17.8	18.0	16.6	16.1	16.3	17.5	16.5	14.0	17.6	19.0	17.0	16.7	2.4
Completed college	17.6	21.1	19.5	14.5	18.6	16.4	21.3	20.8	21.1	20.2	20.8	17.2	23.0	1.9
Graduate or professional school	10.6	11.4	9.4	12.8	12.2	16.6	12.1	14.9	11.9	14.7	12.9	10.0	12.1	0.8
Other	0.8	0.9	0.2	0.7	1.3	0.8	0.5	1.7	0.8	1.2	0.9	0.2	1.5	0.1
Unknown	19.8	3.0	8.5	7.3	7.3	10.7	7.5	7.5	8.2	8.4	8.3	8.3	7.1	90.3
Eighth grade or less	*3.0*	*4.9*	*5.8*	*9.7*	*3.9*	*5.1*	*4.4*	*6.6*	*8.6*	*3.8*	*3.4*	*5.7*	*3.3*	*4.7*
Some high school	*4.0*	*5.3*	*5.1*	*9.7*	*8.3*	*4.6*	*6.1*	*6.6*	*6.9*	*5.3*	*4.6*	*6.3*	*3.4*	*5.5*

* Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
19. Mother's Education (continued)														
Completed high school	*27.5*	*26.7*	*29.4*	*26.4*	*28.7*	*26.2*	*26.3*	*25.0*	*26.1*	*25.0*	*27.4*	*30.9*	*28.2*	*28.9*
Technical training	*7.2*	*8.2*	*8.5*	*7.1*	*6.2*	*5.7*	*7.6*	*8.6*	*6.3*	*7.5*	*8.3*	*8.8*	*6.8*	*6.6*
Some college	*18.8*	*18.4*	*18.7*	*17.8*	*17.3*	*20.8*	*19.0*	*17.9*	*18.2*	*19.2*	*20.7*	*18.6*	*20.1*	*24.4*
Completed college	*21.8*	*22.7*	*21.3*	*18.7*	*20.1*	*18.4*	*23.0*	*22.4*	*23.0*	*23.1*	*22.6*	*16.8*	*24.8*	*19.5*
Graduate or professional school	*13.8*	*11.7*	*10.2*	*18.8*	*12.3*	*18.6*	*13.1*	*16.1*	*12.9*	*16.0*	*14.1*	*10.9*	*13.0*	*8.3*
Other	*0.9*	*1.0*	*0.8*	*0.7*	*1.4*	*0.9*	*2.1*	*1.8*	*0.9*	*1.3*	*1.0*	*0.2*	*1.6*	*0.4*
20. Father's Occupation*														
Physician	12.4	13.0	16.6	11.4	9.4	13.6	19.0	13.2	8.2	15.4	17.3	11.5	14.4	1.2
Other health professional	3.7	3.8	3.4	2.8	5.0	4.7	4.2	3.5	3.7	4.0	4.6	3.3	5.0	0.5
Other professional	20.0	22.4	24.0	19.4	24.9	22.6	20.8	27.6	25.9	24.1	23.8	24.1	27.1	2.2
Owner-manager	16.8	18.4	19.8	15.6	20.0	22.8	19.3	18.9	16.9	17.5	19.3	18.7	20.7	1.7
Clerical-sales	7.1	8.8	7.2	7.6	8.0	8.6	7.8	5.0	11.9	8.6	7.5	8.7	9.0	0.7
Craftsman	8.0	11.2	8.8	14.9	10.7	9.2	8.5	9.9	10.6	8.6	8.5	9.3	7.3	1.2
Unskilled	3.3	3.9	4.4	8.0	4.4	3.3	3.9	5.7	4.2	4.2	3.1	3.8	2.7	0.3
Farmer-manager	2.3	4.9	2.9	4.8	1.6	2.1	2.3	2.1	3.4	1.7	1.5	3.9	2.7	0.3
Homemaker	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	9.4	11.5	8.0	9.7	12.3	8.8	10.4	10.6	8.4	12.4	10.0	13.1	11.3	1.7
Unknown	17.0	2.1	4.8	5.9	3.5	4.1	4.0	3.5	6.9	3.7	4.4	3.8	5.1	90.1

* Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
20. Father's Occupation (continued)														
Physician	*18.0*	*18.3*	*17.4*	*12.1*	*8.4*	*16.1*	*18.8*	*13.7*	*8.8*	*15.9*	*16.1*	*11.9*	*15.1*	*17.1*
Other health professional	*4.8*	*5.9*	*5.6*	*3.9*	*5.2*	*4.9*	*4.5*	*3.7*	*4.0*	*4.2*	*4.4*	*2.4*	*5.1*	*4.5*
Other professional	*24.3*	*22.8*	*21.3*	*20.8*	*26.9*	*23.6*	*21.8*	*29.6*	*27.8*	*24.8*	*24.9*	*25.0*	*23.2*	*22.7*
Owner-manager	*19.5*	*18.8*	*20.7*	*16.5*	*20.6*	*23.8*	*20.1*	*19.6*	*18.1*	*18.1*	*20.2*	*18.4*	*21.8*	*16.9*
Clerical-sales	*8.4*	*8.9*	*7.6*	*9.1*	*8.3*	*9.0*	*8.2*	*6.1*	*11.7*	*8.3*	*7.9*	*9.0*	*9.1*	*7.0*
Craftsman	*10.0*	*11.4*	*9.1*	*16.8*	*11.1*	*8.6*	*8.8*	*10.3*	*11.3*	*8.8*	*8.8*	*9.7*	*7.6*	*11.2*
Unskilled	*4.3*	*4.0*	*4.6*	*6.3*	*4.6*	*3.4*	*4.0*	*3.4*	*4.6*	*4.3*	*3.8*	*3.9*	*3.6*	*3.5*
Farmer-manager	*2.8*	*3.0*	*3.1*	*3.1*	*1.7*	*1.1*	*3.4*	*3.3*	*3.7*	*1.8*	*1.8*	*4.1*	*3.9*	*2.6*
Homemaker	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other	*11.0*	*11.7*	*9.4*	*10.3*	*11.8*	*9.4*	*10.8*	*11.0*	*9.1*	*12.9*	*10.4*	*12.6*	*11.3*	*10.9*
21. Mother's Occupation*														
Physician	0.6	0.3	0.7	0.7	0.6	0.6	1.0	0.9	0.8	0.9	1.1	0.2	0.6	0.8
Other health professional	5.8	7.6	6.0	5.9	5.8	6.2	6.0	6.6	5.0	5.2	5.3	4.1	4.6	0.5
Other professional	9.0	11.6	9.4	12.8	10.6	14.4	6.5	13.9	11.9	12.6	10.7	8.2	8.9	0.9
Owner-manager	2.0	2.8	2.9	2.4	1.9	2.7	2.3	1.4	2.9	1.2	2.3	2.1	2.2	0.2
Clerical-sales	10.0	11.3	11.4	10.7	12.2	14.4	9.5	11.1	14.0	12.7	10.8	12.6	11.9	1.0
Craftsman	1.3	0.9	1.1	1.7	1.3	0.8	1.4	2.1	2.9	2.1	1.8	1.6	1.5	0.2
Unskilled	1.6	2.4	1.6	4.2	2.1	0.6	1.7	3.1	2.6	1.2	1.5	1.8	1.5	0.2
Farmer-manager	0.1	0.0	0.2	0.0	0.2	0.2	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.0

* Percentages in italics exclude non-respondents.

Table 4 (continued)

Characteristics	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
21. Mother's Occupation (continued)														
Homemaker	47.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other	6.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Unknown	16.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Physician	0.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other health professional	6.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other professional	11.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Owner-manager	2.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Clerical-sales	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Craftsman	1.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Unskilled	2.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Farmer-manager	0.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Homemaker	57.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other	6.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 4 (continued)

22. Region and State of Undergraduate College	Total	Specialty Preference at Application: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
Region I	10.6	6.6	10.6	6.3	10.6	11.6	6.6	17.6	12.9	6.6	11.6	6.5	11.1	8.6
Maine	0.6	0.7	0.9	0.3	0.3	0.4	0.3	0.3	0.6	0.3	0.7	0.1	0.4	0.2
Vermont	0.5	0.5	0.6	0.4	0.4	0.4	0.3	0.4	0.3	0.2	0.5	0.1	0.7	0.4
Massachusetts	3.4	2.1	3.6	1.8	3.7	4.7	2.3	7.1	4.7	2.6	4.4	2.1	3.5	3.0
Connecticut	2.3	1.4	2.5	0.8	2.1	2.3	1.3	3.4	3.1	1.6	2.7	1.1	2.9	1.7
Rhode Island	0.9	0.5	0.9	0.4	0.7	0.9	0.3	0.9	0.5	0.3	1.2	0.3	0.7	1.0
New Hampshire	0.9	0.5	1.0	0.7	0.4	0.5	0.4	0.9	0.9	0.5	0.6	0.4	0.7	0.4
Region II	11.7	8.6	10.1	11.1	14.8	10.6	11.6	10.9	10.1	11.4	11.6	8.3	11.6	10.1
New York	11.1	8.1	9.3	10.4	13.8	10.1	11.0	10.3	9.5	10.5	10.5	8.1	11.0	9.6
New Jersey	2.3	1.4	2.6	1.4	2.4	1.8	2.3	2.4	2.4	2.3	2.3	1.5	2.7	2.4
Puerto Rico	0.3	0.4	0.3	0.4	0.5	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.3
Region III	11.3	8.0	12.4	13.8	11.4	10.4	12.0	10.9	12.4	12.8	11.1	12.4	11.1	8.4
Pennsylvania	4.3	2.6	4.6	5.5	4.3	3.8	4.5	3.9	4.3	4.8	3.9	4.6	4.2	3.6
Delaware	0.5	0.4	0.5	0.3	0.4	0.4	0.4	0.4	0.6	0.6	0.5	0.5	0.5	0.5
D.C.	1.1	0.6	1.3	0.8	1.0	1.0	1.0	1.4	2.4	1.8	1.1	1.3	0.7	0.5
Maryland	1.8	1.4	1.8	2.3	1.8	1.3	1.7	1.9	2.3	1.9	1.7	2.1	2.1	1.3
Virginia	1.8	1.1	1.8	2.1	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.4	0.7
West Virginia	0.9	0.9	0.4	0.7	0.9	0.9	0.4	0.3	0.9	0.3	0.9	0.5	0.3	0.2
Region IV	8.7	11.6	10.3	10.7	8.7	6.6	11.1	6.6	9.3	9.3	8.9	9.5	8.6	6.5
Alabama	0.8	1.8	1.1	1.0	1.3	0.4	0.9	0.3	1.1	1.4	0.9	0.7	0.8	0.3
Florida	1.7	1.6	2.6	1.3	2.1	1.4	2.0	2.6	3.2	1.9	1.7	1.3	1.4	0.8
Georgia	1.1	0.1	1.1	1.0	0.8	0.6	1.6	0.7	0.5	1.7	0.6	1.0	0.9	1.7
Kentucky	1.3	1.7	0.9	0.7	1.2	0.6	1.7	0.7	1.3	1.6	1.3	2.1	1.1	1.4
Mississippi	0.7	1.1	0.7	0.0	0.8	0.4	0.3	0.0	0.3	0.2	0.4	0.9	0.3	0.1
North Carolina	2.3	2.3	2.2	3.1	2.6	1.6	2.4	0.9	1.8	1.4	2.1	2.8	2.1	1.3
South Carolina	0.2	0.4	0.4	0.3	0.2	0.0	0.2	0.5	0.0	0.0	0.1	0.2	0.5	0.1
Tennessee	1.4	2.6	1.3	2.8	0.7	0.8	2.0	0.7	0.8	0.9	1.2	1.5	1.8	1.1
Region V	19.5	23.7	16.0	18.3	21.1	16.4	18.6	19.6	18.2	19.7	17.4	22.3	22.2	17.1
Illinois	5.1	7.0	3.8	4.5	6.6	3.3	6.0	6.4	5.0	3.5	5.5	3.6	5.5	3.6
Indiana	2.5	2.6	2.0	2.4	2.5	2.1	1.0	1.4	3.2	2.3	2.1	3.3	3.0	3.8
Ohio	3.8	6.3	3.2	3.8	4.0	3.5	3.2	3.3	2.1	4.2	2.5	4.1	4.2	4.1
Minnesota	2.0	3.0	1.7	1.0	1.3	1.8	2.0	1.2	1.6	1.7	1.6	3.4	2.7	1.1
Michigan	4.0	3.2	3.8	2.8	4.6	2.9	4.5	5.4	4.0	5.9	3.3	4.9	4.6	3.2
Wisconsin	2.1	1.7	1.5	3.8	2.1	2.9	1.9	2.1	2.4	2.1	2.3	2.9	2.2	1.4

Table 4 (continued)

22. Region and State of Undergraduate College	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
Region VI	5.6	9.7	6.4	9.0	4.5	2.9	6.3	3.3	5.8	4.7	6.2	6.1	3.9	5.2
Arkansas	0.8	1.6	0.4	1.7	0.3	0.2	0.9	3.0	0.3	0.2	0.6	1.6	0.5	1.6
New Mexico	0.1	0.3	0.0	0.3	0.0	0.0	0.1	0.0	0.3	0.2	0.0	0.0	0.1	0.2
Oklahoma	0.5	0.7	0.6	0.7	0.4	0.2	0.5	0.5	0.8	0.2	1.0	0.7	0.3	0.4
Texas	2.4	5.4	3.1	3.5	2.1	1.4	2.8	1.7	2.1	1.7	2.5	1.5	1.6	2.0
Louisiana	1.7	1.7	2.3	2.8	1.6	1.0	1.9	1.2	2.4	2.4	2.1	2.3	1.5	1.0
Region VII	5.0	10.4	3.4	4.8	4.5	3.9	3.8	3.6	3.2	5.2	3.8	5.7	6.1	4.6
Iowa	1.5	2.5	1.0	1.0	1.9	0.8	0.9	0.9	1.3	0.7	0.8	2.0	2.3	1.8
Kansas	1.0	2.4	0.6	1.4	1.0	1.0	0.9	1.4	0.8	1.7	1.0	0.8	1.0	0.2
Missouri	1.5	1.6	1.1	1.7	1.3	1.0	1.2	1.2	1.1	1.7	1.7	1.6	1.4	1.9
Nebraska	1.1	3.9	0.7	0.7	0.7	1.0	0.9	0.2	0.0	1.0	0.4	1.3	1.5	0.7
Region VIII	2.6	2.6	3.4	1.7	2.5	2.3	3.3	2.1	2.4	3.0	1.9	3.4	2.0	2.7
Colorado	1.0	0.7	1.3	1.0	1.2	1.6	1.1	0.5	0.5	0.7	0.8	1.3	1.1	0.7
Montana	0.2	0.2	0.5	0.0	0.4	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.2	0.1
North Dakota	0.2	0.0	0.5	0.0	0.1	0.2	0.1	0.0	0.0	0.2	0.1	0.3	0.2	0.6
South Dakota	0.3	0.5	0.1	0.0	0.0	0.0	0.4	0.2	0.0	0.5	0.1	0.5	0.2	0.5
Utah	0.9	1.2	1.0	0.7	0.7	0.4	1.6	0.9	1.3	1.6	0.8	1.1	0.4	0.8
Wyoming	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.2	0.2	0.1	0.1
Region IX	9.0	6.8	9.7	8.0	11.0	9.7	8.8	13.4	9.5	12.2	11.4	5.2	9.0	6.6
Arizona	0.5	0.9	0.6	1.4	0.0	0.4	0.4	1.2	0.0	0.2	0.4	0.5	0.4	0.6
California	7.8	5.0	8.6	5.2	10.3	7.8	7.6	11.8	8.7	11.7	9.8	4.6	8.2	5.1
Hawaii	0.2	0.2	0.2	1.0	0.1	0.0	0.3	0.2	0.5	0.2	0.4	0.2	0.2	0.1
Nevada	0.2	0.6	0.0	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.1	0.3
Trust Territories	0.3	0.0	0.2	0.3	0.4	0.6	0.4	0.2	0.0	0.2	0.6	0.0	0.2	0.5
Region X	2.1	3.1	1.8	1.4	1.	1.4	1.7	1.7	1.8	1.9	2.7	4.1	1.9	2.1
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Idaho	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Oregon	0.9	1.4	0.6	0.3	0.3	0.6	0.5	0.7	0.8	0.9	1.6	1.3	0.7	1.4
Washington	1.0	1.6	1.2	1.0	0.7	0.6	1.1	0.9	1.1	0.9	1.0	2.5	1.1	0.6
Foreign Undergraduate Institutions	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.3	0.0	0.1	0.0	0.1	0.2
Unknown	12.9	11.1	12.3	10.7	9.4	9.9	12.8	7.5	9.0	11.3	13.1	14.6	10.5	21.8

Table 4 (continued)

23. Region and State of Legal Residence at Application	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
Region I	4.5	3.3	5.9	2.4	4.8	6.6	3.8	7.6	3.7	3.5	4.3	4.1	4.5	4.4
Maine	0.2	0.5	0.5	0.0	0.1	0.2	0.1	0.0	0.0	0.2	0.0	0.5	0.0	0.3
Vermont	0.3	0.0	0.4	0.7	0.1	1.0	0.1	0.5	0.8	0.2	0.4	0.2	0.3	0.1
Massachusetts	2.0	1.6	2.8	0.3	2.1	2.1	1.8	3.5	2.1	1.9	1.9	1.3	2.1	2.2
Connecticut	1.5	0.8	1.7	1.0	1.8	2.5	1.3	3.3	0.9	0.9	1.5	2.0	1.6	1.1
Rhode Island	0.3	0.2	0.2	0.3	0.4	0.8	0.4	0.2	0.3	0.2	0.3	0.2	0.4	0.4
New Hampshire	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.2	0.2	0.0	0.2	0.1
Region II	18.5	10.8	18.7	19.4	27.5	25.1	18.5	19.6	21.9	18.2	18.4	14.2	18.9	19.1
New York	14.4	8.3	15.2	13.1	16.9	19.5	14.7	15.8	15.3	13.6	14.5	11.0	15.4	14.4
New Jersey	3.7	2.2	2.8	5.5	4.0	4.7	3.2	3.8	6.6	4.4	3.5	3.1	3.4	4.4
Puerto Rico	0.3	0.2	0.6	0.7	0.6	0.6	0.6	0.2	0.0	0.0	0.4	0.7	0.2	0.3
Region III	12.6	9.9	13.9	16.2	13.1	15.8	11.8	11.8	13.5	13.8	12.1	15.2	13.1	10.8
Pennsylvania	7.1	5.3	7.2	6.2	7.4	7.6	6.2	6.4	6.6	7.2	7.4	8.0	7.7	7.5
Delaware	0.2	0.1	0.4	0.3	0.1	0.4	0.1	0.0	0.0	0.3	0.4	0.5	0.2	0.1
D.C.	0.3	0.0	0.2	1.4	0.2	0.8	0.3	0.9	0.0	0.2	0.3	0.7	0.2	0.1
Maryland	2.3	1.8	2.5	2.8	2.6	4.1	2.2	1.9	2.9	3.3	2.4	2.5	2.6	1.3
Virginia	2.0	2.3	2.8	2.8	2.4	2.5	2.2	1.7	3.2	1.6	1.0	2.5	1.8	1.5
West Virginia	0.7	0.4	0.7	1.7	0.4	0.4	0.9	0.9	0.8	1.0	0.6	1.1	0.8	0.4
Region IV	12.2	13.3	12.1	11.1	11.7	8.8	14.7	10.6	10.6	11.7	12.9	13.1	11.0	12.4
Alabama	1.1	2.2	1.5	1.7	0.9	0.6	1.2	1.2	0.8	1.4	1.2	0.7	1.0	0.4
Florida	2.7	1.6	3.7	2.1	2.8	1.8	3.8	4.5	2.4	2.8	2.7	1.8	2.7	2.0
Georgia	1.8	1.7	1.6	1.7	1.7	1.6	2.3	1.4	1.8	1.6	1.8	1.6	1.7	2.1
Kentucky	1.7	2.1	1.3	2.1	1.3	1.6	2.1	1.9	2.1	1.6	1.6	3.1	1.4	1.7
Mississippi	1.0	0.9	1.1	0.7	0.7	1.0	1.1	0.2	1.3	0.7	1.8	0.7	1.2	0.9
North Carolina	1.5	1.4	0.7	1.0	2.2	1.0	1.6	0.5	1.3	1.6	1.1	2.0	1.1	2.6
South Carolina	0.9	1.6	0.9	0.0	0.7	0.4	0.9	0.6	0.5	0.3	1.3	1.5	1.1	0.9
Tennessee	1.4	1.8	1.3	0.7	1.3	0.6	1.8	0.9	0.3	1.7	1.3	1.8	1.0	1.7
Region V	20.6	24.7	18.3	19.4	22.1	17.7	20.8	19.8	19.0	19.5	20.0	23.9	23.5	16.5
Illinois	6.4	8.8	6.3	5.5	7.7	4.5	6.5	8.7	5.3	4.9	6.0	5.7	7.0	4.9
Indiana	2.3	2.0	2.2	1.7	2.0	1.8	2.4	1.2	2.1	1.6	1.8	3.4	3.0	2.5
Ohio	4.2	6.9	2.9	4.5	3.6	4.9	3.7	3.8	4.2	5.1	3.9	4.4	4.7	3.4
Minnesota	2.0	3.1	2.2	1.7	2.0	1.8	2.0	0.7	1.6	1.7	1.8	2.5	2.8	1.1
Michigan	3.8	2.8	3.8	3.1	4.9	2.3	4.1	4.7	3.2	4.7	3.4	4.4	3.9	3.4
Wisconsin	1.9	1.2	0.9	2.8	1.7	2.3	2.0	0.7	2.6	1.6	3.1	3.4	2.3	1.2

Table 4 (continued)

23. Region and State of Legal Residence at Application	Total	Specialty Preference at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
Region VI	9.0	12.7	10.2	11.1	7.1	6.6	11.2	5.0	8.2	7.3	11.0	9.2	7.4	8.1
Arkansas	1.0	1.7	0.6	1.7	0.5	0.4	1.2	0.0	0.8	0.2	1.1	1.6	0.8	1.7
New Mexico	0.4	0.8	0.2	0.3	0.4	0.0	0.4	0.2	0.0	0.2	0.5	0.8	0.4	0.6
Oklahoma	1.1	1.6	1.1	0.7	0.4	0.8	1.5	0.5	1.3	0.5	1.6	1.8	0.9	0.9
Texas	4.7	7.0	6.3	5.9	4.6	3.7	5.9	3.3	4.2	3.7	5.5	3.3	4.0	3.8
Louisiana	1.7	1.6	2.0	2.4	1.1	1.6	2.2	0.9	1.8	2.8	2.2	1.6	1.4	1.1
Region VII	5.5	11.0	3.3	6.2	4.4	5.1	4.4	3.5	4.5	4.9	3.6	6.1	6.8	5.5
Iowa	1.3	2.3	1.2	1.0	1.0	0.6	1.7	0.5	1.3	0.7	0.4	1.6	2.0	1.6
Kansas	1.1	2.5	0.4	1.4	1.5	1.4	1.3	1.9	0.8	1.6	1.2	1.0	1.0	0.2
Missouri	1.7	1.8	0.9	2.4	1.0	2.1	1.1	0.7	1.6	1.6	1.4	1.3	2.1	2.9
Nebraska	1.3	4.3	0.9	1.4	1.0	1.0	0.9	0.5	0.8	1.0	0.5	2.0	1.8	0.8
Region VIII	2.6	3.6	1.6	2.1	3.1	2.5	2.7	3.5	3.4	3.7	1.5	3.6	2.1	2.7
Colorado	1.0	0.7	1.1	0.3	1.2	1.2	1.1	1.7	1.3	1.2	0.6	1.3	1.0	0.6
Montana	0.3	0.2	0.2	0.3	0.6	0.0	0.1	0.5	0.0	0.3	0.1	0.2	0.3	0.1
North Dakota	0.5	0.6	0.6	1.0	0.5	0.4	0.2	0.2	0.3	0.2	0.1	0.3	0.4	0.9
South Dakota	0.3	0.7	0.1	0.0	0.0	0.2	0.3	0.0	0.0	0.7	0.1	0.6	0.2	0.4
Utah	0.8	1.3	1.0	0.0	0.7	0.6	1.0	1.2	1.3	1.2	0.4	1.0	0.3	0.6
Wyoming	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.1	0.1
Region IX	9.2	7.7	10.8	8.0	3.9	9.2	8.3	14.4	10.6	12.9	11.7	6.4	9.6	6.1
Arizona	0.7	1.4	0.7	1.4	0.1	1.0	0.5	1.2	0.5	0.3	0.5	0.7	0.8	0.6
California	7.7	5.3	8.7	4.6	3.9	7.2	7.3	12.7	8.4	11.9	10.4	5.2	8.2	4.9
Hawaii	0.4	0.3	0.6	1.4	0.5	0.4	0.4	0.5	0.8	0.3	0.5	0.3	0.3	0.2
Nevada	0.3	0.7	0.1	0.0	0.3	0.6	0.2	0.0	0.8	0.3	0.2	0.2	0.3	0.4
Trust Territories	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Region X	2.4	2.6	2.5	1.7	1.3	1.6	2.2	2.1	3.4	2.3	3.3	3.4	2.6	2.4
Alaska	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.2	0.0	0.0
Idaho	0.2	0.1	0.2	0.3	0.0	0.2	0.3	0.0	0.0	0.7	0.5	0.2	0.2	0.2
Oregon	1.0	0.8	0.7	0.3	0.5	0.4	0.9	0.7	1.3	0.3	1.8	1.1	0.8	1.4
Washington	1.2	1.6	1.5	1.0	0.7	1.0	0.9	1.2	1.8	1.2	1.0	2.0	1.6	0.9
Foreign Graduates of U.S. Medical Schools	1.2	0.3	1.3	3.5	1.2	0.8	1.5	1.9	1.1	1.9	1.1	0.7	0.7	1.4
Legal Residence Unknown	1.7	0.2	0.1	0.0	0.0	0.2	0.1	0.0	0.3	0.3	0.2	0.2	0.1	10.6

constitute 17 to 23 percent of the total group on these items, their inclusion would obscure any trends which might exist.

It has already been pointed out that, among those who, at application, prefer surgery and its specialties, there is a greater proportion of men than there is in any other specialty-preference group (Table 4, section 2). Among those preferring ob/gyn, pediatrics and public health, there are greater proportions of women than in other specialty-preference groups. That sex is related to specialty choice is not a surprising finding, since this has been consistently demonstrated in the research literature on the subject. Furthermore, the present data generally pertain to students' specialty preferences of six years ago (1971) when women's perceptions of their roles were just beginning to respond to the stimulus of the women's movement. For the women entering medical school five or six years ago, the fact of their increased entrance to medical school was revolutionary itself, and their specialty preferences remained rather traditionally feminine.

Regarding the data on racial/ethnic identity (Table 4, section 3), previous discussion based on known characteristics of the 1972-73 entrants (page 16) demonstrated that those classified as of "unknown" identity are almost all "Caucasian/white" and that to add the "unknown" to the "Caucasian/white" category for discussion purposes would not be erroneous. In doing so, it can be seen that white entrants are represented by higher proportions in the undecided and no response categories and by lower proportions in the ob/gyn and public health categories. There are four times as many blacks who prefer ob/gyn and twice as many who prefer public health as there are blacks in the total group. Blacks are represented by smaller proportions in the "plan to specialize," "do not plan to specialize," "other" and undecided categories than in the general population of NIRMP participants. Pediatrics and public health attract Asian-Americans.

Among those preferring pediatrics, surgery, specialization ("plan to specialize") and who are undecided there are more younger applicants even though the mean ages of the various specialty-preference groups at matriculation differ by no more than one year (ranging from 22.5 to 23.5 years) (Table 4, section 4). Because age has, over the years, been a fairly heavily weighted factor in the consideration of applicants for admission to medical school,

with younger applicants being preferred, its distribution shows very little variation.

A word of explanation is in order about those students who appear, in section 5 of Table 4, to have taken only 2 years to proceed from matriculation to graduation. Actually, they are students who either were admitted to medical school with advanced standing or who transferred from foreign medical schools, took the last two years of their undergraduate medical training in U.S. institutions and graduated from the U.S. institutions. Accordingly, there is less information on their specialty preferences at application.

It is clearly evident that the proportion of students taking only 3 years to complete their undergraduate medical studies in the group preferring family practice is twice that of any other specialty-preference group. The proportion of those preferring ob/gyn who took 5 years is 2 to 4 times that of any other group except that preferring family practice. The latter group included no students who took 5 years, but 0.7 percent who took 6 years. The group intending at application to make basic medical science their career included higher proportions than did other groups of those taking both less than four years (14.2 percent) and more than four years (7.1 percent) to obtain the M.D. degree.

On all four of the MCAT subtests (Table 4, sections 6, 7, 8, 9), the group preferring ob/gyn had the lowest mean score of all of the specialty-preference groups. Future family practitioners had the second or third lowest scores; while future surgeons had scores below the mean on all four subtests. High scores were typical of those intending to go into psychiatry. They had the highest mean Verbal and General Information scores and above-the-mean scores on the other two subtests. High mean scores on the Quantitative and Science subtests were typical of those groups preferring basic medical science and "other" specialties, those planning to specialize and those who were undecided.

We can see in the total distribution of undergraduate science GPA and overall GPA (Table 4, sections 10, 11) the relative importance of the two factors in the admission of the present group. While the two mean GPA's of 3.3 are identical, 14.6 percent of those with known science GPA's were in the highest category (3.8 to 4.0) in contrast to only 9.4 percent of those with known overall GPA's. Future obstetrician/gynecologists and public health physicians had

the lowest science and overall GPA's. Those planning to specialize and undecided had the highest science and overall GPA's.

Those students who preferred family practice and those who planned not to specialize more often graduated from public undergraduate colleges which are less selective and have enrollments of 1,000 to 4,999 than did those indicating other specialty preferences at application (Table 4, sections 12, 13, 14). On the other side of the undergraduate institution continua are those who planned careers as psychiatrists, public health physicians, basic medical scientists, those who planned to specialize and those who were undecided. These five groups were similar to each other in that they included higher proportions of graduates from selective and, private colleges. Size of their undergraduate colleges, however, does not appear to be a significant factor for students aiming for these five types of careers at time of application to medical school.

The two notable differences among specialty-preference groups in the mean percent of undergraduate science course hours (Table 4, section 15) are the fewer hours taken by those who preferred psychiatry and the greater number of hours taken by those who preferred basic medical science. These distinctive patterns of intellectual interests are also seen in the undergraduate majors (Table 4, section 16) of those who preferred psychiatry and basic medical science at application. Three times as many of those who preferred psychiatry took a "premedical" major than did those who preferred family practice, internal medicine and pediatrics, while two to three times as many took humanities or/math majors than did those who preferred other specialties. Compared to future basic medical scientists six times as many psychiatrists took "premedical" majors, while half as many psychiatrists took biological sciences majors than did other groups.

Over one-third of those who preferred basic medical science took physical sciences majors, as did 30 percent of those who preferred "other" specialties. This compares to 21 percent of all medical students. The undergraduate major distributions of those who preferred the three primary care specialties are similar to each other and to the surgery, "plan to specialize" and "do not plan to specialize" groups. About half were biological sciences majors, another 18 to 25 percent were physical sciences majors, another 6 to 11 percent "premedical" majors, 5 to 9 percent social sciences majors, and 3 to 5 percent humanities or math majors.

Because of the fairly strict minimal course requirements for admission to some medical schools, neither science course hours nor undergraduate major can be taken as uncontaminated indicators of intellectual interests and, by extension, of eventual specialty decisions. Nevertheless, as is evident from the preceding discussion, certain patterns of interest do emerge in a consistent way and are valuable as rough indicators of intellectual interests.

The connections between income, education and occupation (Table 4, sections 17, 18, 19, 20, 21) have been so well established in the sociological literature as to have become almost axiomatic. The interrelationships between these three measures of socioeconomic class are very evident in the present data. Furthermore, definite relationships between socioeconomic background and career plans can be seen, and can be summarized quite succinctly. Those who planned careers in surgery, those who planned to specialize in an unspecified area, those who planned to specialize in "other" areas and those who were undecided at application were all from backgrounds of higher income, greater parental education and more professional parental occupations, while those who preferred ob/gyn, family practice and did not plan to specialize had poorer parents with less education and less professional occupations. The pattern for ob/gyn is particularly strong and may be due to the greater proportion of blacks in this group (22 percent for ob/gyn versus 5 percent for all specialties).

The same is probably true to some extent for those who preferred careers in public health. While the median income for this group is sixth highest (of the 13 specialty preference groups), it is about $1,000 less than that for the total group. Fathers of students in this group had both less and more education (8.7 percent with eighth grade education or less versus 6.8 percent for the total group; and 37.2 percent with graduate or professional school versus 34.7 percent for the total group) and less and more professional occupations (5.9 percent were unskilled versus 4.3 percent for the total group and 28.6 percent were professional versus 24.3 percent for the total group). Because 12 percent of those who preferred this specialty were black (versus 5 percent in the total group) and 6 percent were Hispanic (versus 2 percent in the total group), it would seem that these two groups of minorities were the students of lower parental income, education and occupation in the groups which preferred public health careers.

After the students who preferred ob/gyn, those who preferred basic medical science had the lowest median family income. While this group included a slightly smaller proportion of blacks than did the total group (4.5 percent versus 5.1 percent), it also included about twice as many Hispanic-American students (4.7 percent versus 2.4 percent). Fathers and mothers of these students had less education. Only about half the proportion of their fathers were physicians compared to the fathers of the total group (8.8 percent versus 15.0 percent) and, while slightly more of their fathers were professionals (27.8 percent versus 24.3 percent), more were farmer/managers, craftsmen, unskilled workers and salesmen (32.2 percent versus 25.5 percent). Fewer of their mothers were homemakers and more were professionals other than physicians and owner/managers. Also, more mothers of this group had clerical/sales and craftsman occupations (17.6 percent versus 13.6 percent for the total group).

Those students who preferred careers in family practice came from backgrounds with the third lowest median income and in general with less education and less professional occupations. Other than those who preferred psychiatry, the former were the only group with some (admittedly not very many) fathers reported to be homemakers. More fathers of these students were farmer/managers and fewer were professionals. Potential pediatricians also were from backgrounds characterized by an income below the median, fewer years of parental education, and the next to the lowest proportion of physician fathers. A greater proportion of the fathers of those who preferred pediatrics were other professionals, other health professionals and craftsmen than were the fathers of students who chose other specialties.

In contrast to those students who preferred the other three primary care specialties, students with inclinations towards internal medicine were from families with above-median income, more education, the third highest proportion of physician fathers and, in general, with more fathers in higher-level occupations.

The last variable appearing in Table 4, legal residence at application (section 23), also shows consistent patterns of relationship to specialty choice at application. While the data are presented by individual state and region, they will be discussed only in terms of region, both for the sake of brevity and because the regional data are, by definition, a reflection of the state data. Comparing those regions in

which 9 percent or more of the total group had their legal residence, it can be seen that the percentage of those from Region II who preferred family practice or who were undecided was smaller than the total percentage of Region II students. Similarly, the percentage of Region II students who preferred ob/gyn, psychiatry and basic medical science was greater than their representation in the total group. The family practice and undecided groups also included fewer students from Region III, while internal medicine included more.

Compared with their representation in the total group, students from Region IV constituted a smaller percentage of those who preferred ob/gyn, psychiatry, and basic medical science and those who did not plan to specialize; and a larger percentage of those who preferred surgery and internal medicine. Students from Region V, unlike those from II, III and IV, preferred family practice, planned not to specialize and were undecided in greater proportions than they were represented in the total group of NIRMP participants. They were underrepresented in the groups which preferred internal medicine and basic medical science.

Region VI students preferred family practice, surgery and planned to specialize in slightly greater proportions while they preferred psychiatry and not specializing in smaller proportions than they constituted of the total group. Students from Region IX preferred public health and "other" specialties slightly more often and preferred internal medicine, surgery and were undecided slightly less often.

The relationship between geographic location of legal residence and specialty choice is probably a reflection of a combination of two other relationships: effect of state of residence on admission to medical school,[**] and some medical

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[**] C. L. Lee, J. E. Rolph and A. F. Williams, "The Effect of State of Residence on Medical School Admissions" (unpublished manuscript (draft), The Rand Corp., January 1977).

schools showing admissions preference for applicants with certain career/specialty intentions[27] Since state of undergraduate college (Table 4, section 22) is more than likely related to state of legal residence, the foregoing train of connections is taken one step further.

From the preceding discussion of the characteristics of the 58 percent of students who expressed an inclination towards a particular specialty at application, it can be seen that certain types of students do seem to prefer certain specialties, at least at application. Let us see, now, what are the student characteristics of those preferring a specialty at application are the same as those of students choosing that specialty at graduation.

2. Specialty Choice at Graduation

By graduation, students not only have a clearer idea of the type of career and specialty they prefer, but, if they participate in NIRMP, they must indicate a preference for a specialty. While the choice of a flexible program may be a way of delaying this decision for another year, it can be seen in Table 3 (page 31) that only 7 percent of the NIRMP participants chose a flexible program. Furthermore, it is unknown how many of them chose it, not to avoid a decision about specialty, but to fulfill a prerequisite for further residency training in the specialty of their choice. This percentage compares to 17 percent who were undecided at application, 10 percent who planned to specialize, but were undecided about the particular specialty and 15 percent who did not respond to the question on specialty choice. Thus, at graduation an indication of specialty choice is lacking for only 7 percent, while at application the comparable figure is about 42 percent.

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[27] E. A. Schroeder, S. M. Werner, and T. E. Piemme, "Primary Care in the Academic Medical Centers: A Report of a Survey by the AAMC," J. Med. Educ. 49(1974): 823-833.

Table 5 presents the percentage distributions of student and of medical school characteristics for each group which listed a particular specialty as their first choice for a GME-I program. Also included in the table are the distributions for the group of students who withdrew from NIRMP. (A brief summary of the characteristics of the latter group appears in Appendix C.) Only 6 of the 10 specialty choice categories in Table 5 (GME-I) are identical to any of the 11 categories in Table 4 (at application). They are family practice, internal medicine, ob/gyn, pediatrics, psychiatry and surgery. Of those students expressing specialty preferences at each point in time (7,983 at application and 11,728 at graduation), 12 percent preferred family practice at application and 13 percent preferred it at graduation. The comparable percentages for internal medicine were 10 percent and 40 percent; for ob/gyn, 4 percent and 6 percent; for pediatrics, 12 percent and 10 percent; for psychiatry, 6 percent and 3 percent; and for surgery, 13 percent and 16 percent. Except for the proportion choosing internal medicine, which increased fourfold, the proportions choosing the other five specialties remained essentially the same. Because the two sets of proportions are based upon groups which differ in number by about 4,000, the fact that similar proportions choose a specialty at application and at graduation obscures increases in the absolute numbers. Thus, while the proportions choosing family practice at application and graduation were almost identical (12 percent and 13 percent), the number increased by 66 percent from 948 to 1,573.

a. Student Characteristics: Are the distributions of student characteristics different for those who preferred each specialty at application and those who preferred the same specialty at graduation? The answer is dependent upon the particular combination of specialty and characteristic which is being examined. The sex distributions of the six specialty categories which were identical at application and at graduation show that, at graduation (Table 5, section 2), 2.6 percent fewer women preferred family practice and 9.6 percent fewer preferred ob/gyn. The percent of women among those who preferred internal medicine remained the same from application to graduation; while it increased 5.9 percent for pediatrics, 4.1 percent for psychiatry and 4.4 percent for surgery. The increase for surgery represents more than a doubling of absolute numbers, from 61 at application to 166 at graduation. Since surgery is a traditionally male field, we may see at work here changes in the perceptions of

Table 5

U.S. Medical School Graduates Participating in and Withdrawing from the 1976 NIRMP: Percentage Distributions of Student Premedical Background and Medical School Characteristics for GME-I Specialty Choices

Characteristics	Total	GME-I Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties†	Medical Specialties§	Pathology	Radiology		
1. All Students*	13,222	1,573	4,728	663	1,128	386	1,888	66	235	205	856	1,494
2. Sex												
Male	82.9	86.8	84.7	77.7	65.2	77.2	90.7	84.8	80.9	86.3	82.5	79.9
Female	16.3	12.3	14.5	21.9	34.2	21.8	8.8	13.6	18.7	12.7	16.8	18.5
Unknown	0.8	0.8	0.8	0.5	0.5	1.0	0.4	1.5	0.4	1.0	0.7	1.6
3. Racial/Ethnic Identity												
Afro-American/Black	5.7	3.2	4.6	13.6	6.1	4.9	5.2	3.0	2.1	2.9	5.0	10.3
American Indian	0.3	0.7	0.2	0.5	0.3	0.0	0.3	0.0	0.0	0.0	0.2	0.7
Asian-American/ Oriental	0.6	0.4	0.5	1.5	0.5	0.5	0.2	0.0	0.4	1.0	0.8	0.9
Caucasian/White	70.8	75.5	71.2	63.7	68.0	69.4	74.2	78.8	74.9	76.6	68.6	65.5
Hispanic-American	2.6	2.4	2.2	2.0	2.7	2.3	2.0	4.5	3.8	3.4	3.9	3.7
Other	2.9	1.8	3.2	2.9	4.9	2.3	2.9	1.5	0.4	1.5	2.6	2.3
Unknown	17.2	16.1	18.1	16.0	17.6	20.5	15.2	12.1	18.3	14.6	18.7	16.5
4. Age at Graduation												
21 - 22	0.1	0.1	0.1	0.2	0.4	0.3	0.0	0.0	0.0	0.0	0.2	0.2
23 - 24	5.0	3.4	5.5	4.7	5.1	4.7	6.4	9.1	3.8	3.9	3.9	4.8
25 - 26	56.1	55.8	59.2	54.9	60.5	49.5	57.2	45.5	51.9	52.7	53.9	47.1
27 - 28	20.9	21.4	19.7	19.8	18.8	21.0	20.4	25.8	25.5	23.9	23.8	23.6
29 - 30	8.5	8.6	7.4	9.7	8.2	11.1	8.6	9.1	8.1	7.3	9.2	10.8
31 - 32	4.2	5.5	3.3	4.7	3.3	6.0	3.4	6.1	5.1	4.9	4.1	6.0

* The figures in this row are frequencies rather than percentages.

† Surgical Specialties include: Anesthesiology, Neurosurgery, Ophthalmology, Orthopedic Surgery, Otolaryngology and Urology.

§ Medical Specialties include: Dermatology, Neurology, Physical Medicine and Rehabilitation.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
4. Age at Graduation (continued)												
33 - 34	2.2	2.2	2.0	2.7	1.5	3.4	2.0	1.5	2.6	3.4	1.9	3.4
35 years or more	2.1	2.2	1.8	3.0	1.7	3.1	1.5	1.5	2.6	2.9	2.3	2.6
Unknown	0.8	0.8	0.9	0.5	0.5	1.0	0.4	1.5	0.4	1.0	0.7	1.6
Mean Age	26.9	27.1	26.8	27.1	26.7	27.4	26.7	27.0	27.2	27.1	27.0	27.3
5. Years in Medical School												
2 years	2.0	1.5	2.6	2.6	1.6	1.0	2.1	1.5	1.7	1.0	1.6	0.9
3 years	13.0	13.8	11.2	11.2	13.0	14.8	12.8	7.5	11.5	11.2	13.6	16.9
4 years	79.8	79.8	79.9	79.0	80.1	74.4	81.0	87.9	73.6	81.0	77.9	72.2
5 years	3.8	3.6	3.2	5.1	3.1	6.5	2.8	1.5	8.5	4.9	4.4	5.6
6 years or more	1.6	0.5	1.6	1.5	1.6	2.3	0.8	0.0	3.8	1.0	1.8	2.8
Unknown	0.8	0.8	0.8	0.6	0.5	1.0	0.4	1.5	0.4	1.0	0.7	1.6
Mean Years	3.9	3.9	3.9	4.0	3.9	4.0	3.9	3.9	4.0	4.0	4.0	4.0
6. MCAT - Verbal Score												
701 - 800	3.8	3.2	4.5	1.4	5.3	8.0	2.9	0.0	8.1	2.9	1.9	2.9
601 - 700	32.7	30.1	36.8	23.7	35.4	46.1	27.0	45.5	32.3	33.7	30.6	29.3
501 - 600	35.8	36.9	36.0	36.2	35.3	29.5	38.2	28.8	31.5	40.0	35.7	33.4
401 - 500	20.6	23.1	16.8	29.9	17.8	11.9	24.5	18.2	20.4	17.6	23.9	24.4
301 - 400	3.4	3.8	2.4	5.6	3.0	0.5	4.4	3.0	1.7	2.9	4.6	4.4
201 - 300	0.1	0.1	0.0	0.3	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.1
Unknown	3.6	3.0	3.6	3.0	3.2	4.7	2.9	4.5	6.0	2.9	3.2	5.4
Mean Score	562.6	555.2	574.4	533.8	572.9	598.6	547.6	567.9	575.0	567.0	552.2	551.6

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										Withdrew from NIRMP
		Categorical or Diversified									Flexible	
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
7. MCAT - Quantitative Score												
701 - 800	13.5	10.9	16.6	7.4	14.1	14.0	12.1	19.7	20.9	14.6	10.2	10.4
601 - 700	43.9	45.1	47.2	38.2	44.8	42.7	41.8	34.8	39.1	49.3	41.9	38.3
501 - 600	29.2	30.6	25.7	33.6	28.1	30.8	33.0	36.4	25.5	27.3	33.3	30.9
401 - 500	8.3	8.6	6.1	14.8	7.9	6.5	8.6	4.5	7.2	5.9	9.9	12.4
301 - 400	1.4	1.5	0.8	2.9	1.8	0.8	1.5	0.0	1.3	0.0	1.5	2.4
201 - 300	0.1	0.1	0.1	0.2	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.3
Unknown	3.6	3.0	3.6	3.0	3.2	4.7	2.9	4.5	6.0	2.9	3.2	5.4
Mean Score	612.8	607.6	626.1	583.4	615.2	615.4	608.2	624.8	630.0	627.4	601.5	593.3
8. MCAT - Science Score												
701 - 800	4.9	2.7	6.4	2.6	4.9	4.9	4.6	3.0	10.6	4.4	3.7	4.1
601 - 700	35.0	36.2	38.6	27.9	34.9	35.0	34.6	36.4	39.1	39.5	30.3	27.1
501 - 600	42.1	43.2	40.6	41.6	42.7	41.2	43.0	43.9	36.6	43.9	45.9	43.4
401 - 500	12.2	13.1	9.7	20.5	11.4	11.7	12.7	10.6	6.8	8.8	14.7	16.0
301 - 400	2.0	1.8	1.1	3.9	2.5	2.3	2.2	1.5	0.9	0.5	2.2	3.5
201 - 300	0.1	0.1	0.1	0.5	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.4
Unknown	3.6	3.0	3.6	3.0	3.2	4.9	2.9	4.5	6.0	2.9	3.2	5.4
Mean Score	578.3	573.4	589.7	552.8	576.7	580.0	575.9	583.3	605.9	586.9	568.2	562.2
9. MCAT - General Information Score												
701 - 800	3.0	1.9	3.5	1.5	4.8	7.5	2.1	1.5	3.8	2.4	1.8	2.4
601 - 700	26.4	24.9	30.1	17.0	28.5	36.0	22.3	24.2	33.6	28.3	21.8	23.0
501 - 600	43.8	46.3	43.7	44.8	42.9	37.6	44.2	51.5	39.1	42.0	48.0	41.1

Table 5 (continued)

Characteristics	Total	GME-1 Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
9. MCAT - General Information Score (continued)												
401 - 500	21.1	21.7	17.7	29.6	18.6	13.2	26.0	16.7	16.6	22.9	23.4	24.8
301 - 400	2.1	2.2	1.4	4.1	2.0	0.8	2.5	1.5	0.9	1.5	1.9	3.3
201 - 300	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	3.6	3.0	3.6	3.0	3.2	4.7	2.9	4.5	6.0	2.9	3.2	5.4
Mean Score	557.0	552.3	566.7	529.2	565.9	587.0	545.5	561.3	574.1	559.9	547.9	545.3
10. Undergraduate Science GPA*												
3.8 - 4.0	11.9	12.0	13.9	7.8	13.0	11.4	10.2	13.6	11.5	12.2	8.5	10.5
3.4 - 3.79	24.7	26.5	25.9	20.2	26.1	21.2	23.9	27.3	25.5	31.7	24.9	20.5
3.0 - 3.39	23.2	23.1	23.1	25.4	24.0	23.6	23.3	16.7	17.9	24.9	24.6	21.1
2.6 - 2.99	10.3	10.6	9.6	11.2	11.3	11.1	11.9	10.6	7.7	7.3	11.6	9.4
2.0 - 2.59	5.0	4.2	4.3	7.8	4.3	4.7	6.2	7.6	5.1	2.9	4.9	6.4
Below 2.0	0.8	0.5	0.8	1.7	0.4	1.3	1.1	0.0	0.4	0.0	0.5	0.8
Unknown	24.1	23.0	22.5	24.9	20.7	26.7	23.4	24.2	31.9	21.0	25.0	31.3
Mean GPA	3.3	3.3	3.4	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.3
3.8 - 4.0	*15.7*	*16.8*	*18.0*	*10.4*	*16.4*	*15.5*	*13.5*	*18.0*	*16.9*	*15.4*	*11.4*	*15.3*
3.4 - 3.79	*32.9*	*34.8*	*33.4*	*26.9*	*32.9*	*29.0*	*31.3*	*36.0*	*37.5*	*40.1*	*33.2*	*29.6*
3.0 - 3.39	*30.6*	*30.0*	*29.8*	*33.1*	*30.3*	*28.2*	*30.4*	*22.0*	*20.3*	*31.5*	*32.9*	*30.7*
2.6 - 2.99	*13.6*	*13.7*	*12.3*	*14.9*	*14.3*	*15.2*	*15.5*	*14.0*	*11.3*	*9.3*	*15.4*	*13.7*
2.0 - 2.59	*6.5*	*5.5*	*5.5*	*10.4*	*5.5*	*8.4*	*8.2*	*10.0*	*7.5*	*3.7*	*6.5*	*9.3*
Below 2.0	*1.0*	*0.7*	*1.0*	*2.3*	*0.6*	*1.8*	*1.4*	*0.0*	*0.6*	*0.0*	*0.6*	*1.2*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
11. Undergraduate Overall GPA*												
3.8 - 4.0	7.9	8.4	9.1	5.0	9.4	8.8	6.4	9.1	9.4	8.3	5.4	7.1
3.4 - 3.79	28.7	31.3	30.8	25.2	30.0	25.4	26.5	30.3	33.6	31.2	28.9	22.4
3.0 - 3.39	27.2	26.8	27.1	27.5	27.4	30.6	27.5	19.7	20.4	34.1	37.8	26.6
2.6 - 2.99	10.9	10.0	9.9	13.0	11.7	9.3	12.8	13.6	10.2	7.3	12.1	11.0
2.0 - 2.59	4.3	3.2	3.5	7.5	3.4	4.4	5.8	6.1	2.1	2.9	3.9	6.2
Below 2.0	0.2	0.2	0.1	0.8	0.2	0.0	0.3	0.0	0.4	0.0	0.1	0.2
Unknown	20.8	20.0	19.5	21.1	18.0	21.5	20.8	21.2	23.8	16.1	21.8	26.6
Mean GPA	3.3	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.3
3.8 - 4.0	*10.1*	*10.5*	*11.2*	*6.3*	*11.5*	*11.3*	*8.0*	*11.5*	*12.3*	*9.9*	*6.9*	*9.7*
3.4 - 3.79	*36.9*	*39.2*	*38.2*	*31.9*	*38.5*	*32.5*	*33.6*	*38.5*	*44.1*	*37.2*	*36.9*	*30.4*
3.0 - 3.39	*34.1*	*33.6*	*33.7*	*34.8*	*33.4*	*38.9*	*34.7*	*25.0*	*26.8*	*40.7*	*35.6*	*36.3*
2.6 - 2.99	*13.8*	*12.6*	*12.3*	*10.4*	*14.3*	*11.9*	*16.1*	*17.3*	*13.4*	*8.7*	*15.5*	*14.9*
2.0 - 2.59	*5.1*	*4.1*	*4.5*	*9.6*	*4.1*	*5.6*	*7.5*	*7.7*	*2.8*	*3.5*	*4.9*	*8.4*
Below 2.0	*0.3*	*0.2*	*0.2*	*1.9*	*0.2*	*0.0*	*0.4*	*0.0*	*0.6*	*0.0*	*0.1*	*0.3*
12. Undergraduate College - Control												
Public	47.3	52.8	44.7	48.1	41.8	45.1	44.7	51.5	46.8	52.2	56.9	51.1
Private	49.7	44.3	52.5	49.6	55.3	52.3	52.0	42.4	50.6	46.3	40.0	45.2
Unknown	3.0	2.9	2.9	2.3	2.9	2.6	3.3	6.1	2.6	1.5	3.2	3.7
13. Undergraduate College - Enrollment												
Less than 500	0.4	0.6	0.5	0.2	0.2	0.8	0.3	0.0	0.0	0.0	0.2	0.5
500 - 999	3.0	4.7	2.2	3.2	3.8	2.3	3.2	3.0	3.0	2.4	3.3	3.1

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										Withdrew from NIRMP
		Categorical or Diversified									Flexible	
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
13. Undergraduate College - Enrollment (continued)												
1,000 - 2,499	12.6	15.3	10.8	13.7	14.5	12.4	12.0	7.6	13.2	10.2	12.1	14.5
2,500 - 4,999	8.8	8.8	8.7	10.4	8.4	10.9	9.5	10.6	7.6	6.3	6.3	9.4
5,000 - 9,999	19.3	16.0	20.0	20.5	19.1	18.1	20.0	10.6	20.0	24.9	19.7	18.6
10,000 - 19,999	15.7	15.0	16.3	14.5	16.5	12.2	15.0	18.2	17.0	14.6	17.3	14.9
20,000 or more	31.6	31.4	33.0	30.5	27.6	34.7	31.5	40.9	29.4	37.1	32.0	29.5
Unknown	8.6	8.1	8.5	7.1	9.9	8.5	8.4	9.1	9.8	4.4	9.0	9.6
14. Undergraduate College - Selectivity												
1. Non-competitive	4.6	4.5	5.3	3.3	4.4	5.2	3.8	1.5	6.0	3.4	4.9	4.4
2. Less competitive	7.1	9.5	4.8	11.5	6.5	5.7	5.5	4.5	8.5	5.9	9.2	11.9
3. Competitive	27.5	33.0	23.5	27.3	22.8	23.8	29.4	27.3	24.3	33.7	34.3	31.9
4. Competitive	8.0	10.1	6.9	10.9	7.3	7.5	8.3	7.6	8.1	10.2	8.3	8.0
5. Very competitive	14.8	13.0	16.0	15.1	15.2	11.7	15.3	21.2	15.7	19.0	13.4	12.2
6. Very competitive	8.4	7.3	9.6	8.4	10.0	8.8	8.0	7.6	6.0	6.8	9.0	5.4
7. Highly competitive	10.1	9.1	11.6	8.6	11.7	13.2	9.4	12.1	11.9	6.8	7.6	7.2
8. Highly competitive	5.0	4.2	5.4	4.5	5.8	4.4	5.8	6.1	5.5	4.9	3.5	4.3
9. Most competitive	9.1	4.8	12.1	5.6	11.1	14.5	8.5	6.1	8.1	6.3	4.4	7.2
Unknown	5.3	4.6	4.7	4.8	5.3	5.2	6.0	6.1	6.0	2.9	5.3	7.5
Mean Selectivity	4.8	4.3	5.1	4.5	5.1	5.1	4.7	4.9	4.7	4.5	4.2	4.3

Table 5 (continued)

Characteristics	Total	GME-1 Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
15. Percent of Undergraduate Course Hours in Science*												
81% or more	1.1	0.5	1.3	0.9	1.2	0.8	1.2	0.0	1.7	1.0	0.8	1.1
71% to 80%	6.9	6.5	7.4	5.3	7.4	3.6	6.6	10.6	8.9	8.8	7.4	6.4
61% to 70%	20.9	21.7	21.2	19.3	21.5	11.4	24.3	15.2	20.9	26.8	21.0	16.7
51% to 60%	23.9	25.9	23.9	27.6	23.6	21.6	24.3	19.7	20.4	18.5	22.3	22.5
41% to 50%	12.2	11.4	12.8	13.0	13.3	12.2	11.3	19.7	10.2	10.7	12.5	11.2
31% to 40%	6.1	6.0	6.2	6.0	7.2	10.6	5.0	9.1	5.5	8.8	5.4	5.5
21% to 30%	3.3	3.4	3.3	2.3	3.5	7.5	2.9	1.5	0.0	3.9	3.9	3.3
20% or less	1.4	1.5	1.3	0.8	1.6	5.2	1.0	1.5	0.4	0.5	1.6	1.8
Unknown	24.2	23.1	22.6	24.9	20.7	26.9	23.5	22.7	31.9	21.0	25.1	31.4
Mean Percent	55.1	54.9	55.4	55.2	54.9	47.8	56.3	53.7	58.5	56.1	55.0	54.3
81% or more	*1.4*	*0.7*	*1.7*	*1.2*	*1.6*	*1.1*	*1.6*	*0.0*	*2.6*	*1.3*	*1.1*	*1.7*
71% to 80%	*8.1*	*8.4*	*8.6*	*7.0*	*9.4*	*6.0*	*8.7*	*13.7*	*13.1*	*11.1*	*9.8*	*9.4*
61% to 70%	*27.9*	*28.2*	*27.4*	*25.7*	*27.2*	*15.6*	*31.7*	*19.6*	*30.6*	*34.0*	*28.1*	*24.3*
51% to 60%	*31.5*	*33.7*	*30.9*	*36.7*	*29.8*	*29.8*	*31.8*	*25.6*	*30.0*	*23.6*	*29.8*	*32.6*
41% to 50%	*16.1*	*14.8*	*16.5*	*17.3*	*18.8*	*16.7*	*14.7*	*25.5*	*15.0*	*13.6*	*16.7*	*16.4*
31% to 40%	*8.1*	*7.9*	*8.0*	*8.0*	*9.1*	*14.5*	*6.6*	*11.8*	*9.1*	*11.1*	*7.8*	*8.0*
21% to 30%	*4.3*	*4.5*	*4.3*	*3.0*	*4.4*	*10.5*	*3.7*	*3.0*	*0.0*	*4.9*	*5.1*	*4.2*
20% or less	*1.8*	*1.8*	*1.7*	*1.0*	*2.0*	*7.1*	*1.3*	*3.0*	*0.8*	*0.8*	*2.3*	*2.8*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										Withdrew from NIRMP
		Categorical or Diversified									Flexible	
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
16. Undergraduate Major												
Biological sciences	43.8	45.1	43.4	50.5	45.8	32.6	47.0	34.8	47.7	38.5	41.6	39.6
Physical sciences, and mathematics	21.2	21.1	22.4	18.4	17.7	14.2	21.3	21.2	21.7	28.8	19.7	22.6
Humanities, languages and the arts	3.9	3.6	4.0	2.1	4.9	11.1	3.1	1.5	3.0	3.4	4.0	3.4
Social sciences	6.[illegible]	7.8	5.9	8.6	6.2	6.0	7.5	7.6	6.4	7.3	8.9	7.2
Premedical	9.5	9.1	10.2	7.4	11.1	17.9	8.2	15.2	6.0	9.3	8.5	8.2
Other	9.0	7.3	8.9	9.0	9.6	11.1	7.8	12.1	13.2	7.3	9.3	11.3
Unknown	5.7	6.0	5.3	3.9	4.7	7.0	5.1	7.6	2.1	5.4	7.9	7.8
17. Parental Income*												
Less than $5,000	5.7	5.9	5.0	8.3	5.8	6.2	5.0	4.5	7.7	5.4	6.1	7.3
$5,000 to $9,999	13.3	15.8	11.8	15.2	11.0	12.2	12.3	10.6	12.8	15.6	13.9	17.5
$10,000 to $14,999	19.7	23.4	18.3	19.5	19.8	20.5	18.9	15.2	20.4	16.6	20.4	21.0
$15,000 to $19,999	13.0	13.5	13.6	11.9	15.4	11.7	12.7	15.2	10.2	10.[illegible]	11.9	11.2
$20,000 or more	26.3	22.5	28.1	24.1	25.7	26.4	30.9	33.3	27.2	27.[illegible]	25.4	20.3
Unknown	21.9	18.9	23.2	21.0	22.3	23.1	20.2	21.2	21.7	24.4	22.3	22.7
Median Income	15,108	14,021	15,211	14,108	15,747	14,904	16,443	17,999	14,582	16,114	14,613	13,303
Less than $5,000	*7.1*	*7.3*	*6.4*	*10.3*	*7.4*	*8.1*	*6.3*	*5.8*	*9.8*	*7.1*	*7.9*	*9.4*
$5,000 to $9,999	*16.4*	*18.3*	*13.4*	*17.3*	*14.3*	*13.8*	*15.6*	*13.5*	*16.3*	*20.6*	*17.9*	*22.6*
$10,000 to $14,999	*24.3*	*26.8*	*23.9*	*24.6*	*25.5*	*26.6*	*23.6*	*19.2*	*28.1*	*21.9*	*26.3*	*27.9*
$15,000 to $19,999	*16.0*	*16.8*	*17.7*	*15.1*	*19.9*	*15.3*	*16.9*	*19.2*	*15.0*	*14.2*	*15.3*	*14.5*
$20,000 or more	*34.6*	*27.7*	*36.6*	*30.5*	*33.1*	*34.3*	*38.7*	*42.3*	*34.8*	*36.1*	*32.6*	*25.3*

* Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970. Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
18. Father's Education*												
Eighth grade or less	5.2	6.7	4.7	7.2	4.3	4.7	4.0	4.5	5.1	3.4	5.3	6.8
Some high school	5.0	4.5	5.1	5.0	5.2	3.6	4.6	1.5	4.7	4.4	4.7	6.8
Completed high school	12.8	14.0	12.0	14.5	10.8	16.1	13.2	15.2	13.6	14.6	12.4	13.3
Technical training	2.9	4.3	2.7	2.7	2.7	2.3	2.5	4.5	3.8	2.9	2.5	2.8
Some college	11.2	12.8	10.7	11.2	10.9	10.1	12.4	6.1	7.7	11.7	11.2	10.9
Completed college	14.4	15.1	15.2	11.0	18.2	13.2	12.7	10.6	11.9	14.1	14.5	13.1
Graduate or professional school	27.8	23.8	28.7	28.4	27.0	[illegible]	29.7	36.4	31.5	28.3	28.6	25.2
Other	0.8	0.7	0.8	0.5	0.5	0.5	1.1	1.5	0.0	1.5	1.3	0.7
Unknown	19.8	18.1	20.2	19.0	20.2	21.5	19.7	19.7	21.7	19.0	19.6	20.2
Eighth grade or less	*6.2*	*8.2*	*5.9*	*9.0*	*5.4*	*5.9*	*5.0*	*3.7*	*6.5*	*4.5*	*6.5*	*6.6*
Some high school	*6.0*	*5.6*	*6.3*	*6.2*	*6.6*	*4.6*	*5.7*	*1.9*	*6.0*	*5.4*	*5.9*	*6.6*
Completed high school	*15.9*	*17.3*	*15.0*	*18.0*	*13.6*	*20.5*	*16.5*	*15.9*	*17.4*	*18.1*	*15.4*	*16.7*
Technical training	*3.6*	*5.3*	*3.4*	*3.4*	*3.4*	*3.0*	*3.2*	*5.7*	*4.9*	*3.6*	*3.1*	*3.5*
Some college	*14.0*	*15.6*	*13.4*	*13.9*	*13.7*	*12.9*	*15.5*	*7.5*	*9.5*	*14.5*	*14.0*	*13.7*
Completed college	*18.2*	*18.4*	*19.0*	*13.7*	*22.8*	*16.8*	*15.8*	*13.2*	*15.2*	*17.5*	*18.0*	*16.4*
Graduate or professional school	*35.0*	*29.1*	*35.9*	*35.3*	*33.9*	*35.6*	*36.9*	*45.3*	*40.2*	*34.9*	*35.6*	*31.6*
Other	*1.0*	*0.8*	*1.0*	*0.6*	*0.7*	*0.7*	*1.3*	*1.9*	*0.0*	*1.8*	*1.6*	*0.9*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
19. Mother's Education*												
Eighth grade or less	3.8	4.5	3.9	5.1	2.9	3.1	2.9	3.0	3.4	2.9	4.0	4.3
Some high school	4.7	4.5	4.4	5.6	3.9	2.5	4.8	3.0	3.8	5.4	4.1	6.5
Completed high school	22.2	24.5	22.1	21.0	20.7	23.6	21.4	18.2	21.3	20.5	23.0	22.0
Technical training	5.4	6.4	5.3	6.6	5.3	5.2	5.6	4.5	7.2	3.9	4.7	4.6
Some college	15.6	14.2	14.7	16.9	16.2	17.4	16.3	18.2	16.2	17.6	15.5	17.5
Completed college	17.2	18.5	17.5	15.4	18.5	14.0	17.2	25.8	16.6	18.5	19.2	13.8
Graduate or professional school	10.6	8.3	11.5	8.9	11.3	11.9	11.2	6.1	8.1	10.2	9.3	10.5
Other	0.8	1.1	0.6	0.9	0.9	0.8	0.9	1.5	0.9	1.5	0.8	0.8
Unknown	13.8	10.1	20.0	19.6	20.2	21.5	19.6	19.7	22.6	19.5	19.4	20.1
Eighth grade or less	*4.5*	*3.8*	*4.3*	*6.4*	*3.7*	*3.0*	*3.8*	*3.6*	*4.4*	*3.0*	*4.9*	*5.4*
Some high school	*5.3*	*5.4*	*5.5*	*6.9*	*4.9*	*3.3*	*6.0*	*3.8*	*4.9*	*6.7*	*5.1*	*8.1*
Completed high school	*27.8*	*30.0*	*27.7*	*26.2*	*26.0*	*30.0*	*26.7*	*22.6*	*27.5*	*25.5*	*28.6*	*27.5*
Technical training	*6.8*	*7.8*	*6.6*	*8.3*	*6.7*	*6.6*	*6.8*	*5.7*	*9.3*	*4.8*	*5.8*	*5.7*
Some college	*18.5*	*17.3*	*18.3*	*21.0*	*20.3*	*20.1*	*20.3*	*22.6*	*20.9*	*21.8*	*19.3*	*21.9*
Completed college	*21.7*	*21.6*	*21.3*	*19.1*	*23.3*	*17.8*	*21.6*	*32.1*	*21.4*	*23.0*	*23.8*	*17.3*
Graduate or professional school	*13.3*	*10.2*	*14.3*	*11.1*	*14.1*	*16.8*	*13.9*	*7.5*	*10.4*	*12.7*	*11.6*	*13.2*
Other	*1.0*	*1.3*	*0.8*	*1.1*	*1.2*	*1.0*	*1.1*	*1.9*	*1.1*	*1.8*	*1.0*	*1.0*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
20. Father's Occupation*												
Physician	12.1	8.6	12.1	13.3	9.7	9.3	16.6	13.6	16.2	15.7	14.6	9.1
Other health professional	3.7	2.4	4.1	3.8	3.7	4.4	3.4	4.5	2.1	3.9	4.1	3.5
Other professional	19.8	20.7	20.1	17.8	21.7	21.2	18.1	22.7	17.9	16.6	19.9	19.3
Owner-manager	16.7	15.5	17.4	16.6	18.1	20.2	15.6	16.7	13.2	17.1	15.1	16.3
Clerical-sales	7.1	8.2	7.4	7.2	6.4	7.5	6.5	6.1	5.1	8.3	6.0	6.6
Craftsman	8.1	9.5	7.4	8.1	8.0	8.5	7.9	10.6	10.6	7.8	7.2	9.3
Unskilled	3.4	3.9	2.7	4.5	2.7	2.8	3.5	1.5	1.7	2.4	3.9	4.5
Farmer-manager	2.4	4.7	1.4	2.3	1.4	1.6	2.3	0.0	2.1	1.5	2.9	2.9
Homemaker	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	9.5	10.9	9.0	8.7	9.3	6.2	9.8	6.1	11.5	8.8	9.7	10.5
Unknown	17.2	15.6	17.5	17.5	17.1	18.1	16.1	16.2	19.6	18.5	16.7	16.9
Physician	*13.0*	*10.8*	*14.7*	*14.7*	*11.7*	*11.4*	*13.8*	*16.7*	*21.1*	*18.8*	*17.5*	*11.2*
Other health professional	*4.4*	*2.9*	*5.0*	*4.6*	*4.6*	*3.4*	*4.0*	*4.8*	*2.6*	*4.8*	*4.9*	*4.3*
Other professional	*24.1*	*24.6*	*24.4*	*21.8*	*26.6*	*22.9*	*21.3*	*27.8*	*22.3*	*20.4*	*23.6*	*22.8*
Owner-manager	*20.2*	*18.4*	*21.2*	*20.2*	*21.8*	*24.7*	*18.0*	*20.4*	*16.4*	*21.0*	*18.1*	*20.1*
Clerical-sales	*8.6*	*9.7*	*8.9*	*8.8*	*7.7*	*9.2*	*7.9*	*7.4*	*6.3*	*10.2*	*7.2*	*8.2*
Craftsman	*9.6*	*11.2*	*8.9*	*9.9*	*9.6*	*10.4*	*9.4*	*13.0*	*13.2*	*9.6*	*8.7*	*11.5*
Unskilled	*4.0*	*4.7*	*3.3*	*5.6*	*3.3*	*3.5*	*4.3*	*1.9*	*2.1*	*3.0*	*4.6*	*5.5*
Farmer-manager	*2.9*	*5.6*	*2.8*	*2.7*	*1.7*	*1.9*	*2.7*	*0.0*	*2.6*	*1.8*	*3.5*	*3.6*
Homemaker	*0.0*	*0.1*	*0.0*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other	*11.3*	*13.0*	*10.9*	*10.6*	*11.8*	*7.6*	*11.7*	*7.4*	*14.3*	*10.6*	*11.6*	*13.0*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
21. Mother's Occupation*												
Physician	0.6	0.3	0.6	0.5	0.9	0.5	1.0	1.5	0.0	0.0	0.4	0.7
Other health professional	4.9	5.5	4.8	6.2	4.5	4.7	4.8	6.1	3.8	3.9	3.7	5.2
Other professional	9.1	8.3	9.1	8.4	9.6	10.9	8.8	10.6	8.1	8.8	8.8	10.2
Owner-manager	2.0	2.0	2.0	2.1	2.0	3.6	1.6	1.5	2.3	3.4	1.5	2.0
Clerical-sales	10.1	10.3	10.2	9.8	11.4	13.0	8.5	9.1	10.6	8.8	9.8	10.9
Craftsman	1.3	1.7	1.3	1.4	1.0	0.8	1.2	1.5	2.1	1.5	1.1	1.2
Unskilled	1.6	2.0	1.5	2.3	1.3	1.3	1.3	0.0	0.9	2.4	2.3	1.8
Farmer-manager	0.1	0.2	0.1	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.1	0.2
Homemaker	47.6	47.8	47.0	46.6	46.5	42.2	50.9	51.5	46.4	48.3	51.6	44.9
Other	5.9	6.6	6.2	5.7	6.1	4.1	5.8	3.0	6.8	4.9	5.3	4.9
Unknown	16.8	15.2	17.1	16.9	16.4	18.7	16.2	15.2	20.0	18.0	16.5	17.9
Physician	*0.7*	*0.4*	*0.8*	*0.6*	*1.2*	*0.6*	*1.1*	*1.8*	*0.0*	*0.0*	*0.4*	*0.8*
Other health professional	*6.5*	*6.5*	*6.8*	*7.4*	*6.4*	*5.7*	*6.7*	*7.1*	*4.8*	*4.8*	*4.5*	*6.4*
Other professional	*10.8*	*9.8*	*10.8*	*10.8*	*11.5*	*12.4*	*10.5*	*12.5*	*10.2*	*10.7*	*10.5*	*12.5*
Owner-manager	*2.4*	*2.4*	*2.4*	*2.6*	*2.4*	*4.1*	*2.0*	*1.8*	*1.6*	*4.2*	*1.8*	*2.4*
Clerical-sales	*12.0*	*12.1*	*12.1*	*11.8*	*13.7*	*14.8*	*10.1*	*10.7*	*13.3*	*10.7*	*10.5*	*13.1*
Craftsman	*1.6*	*1.9*	*1.6*	*1.8*	*1.2*	*1.0*	*1.5*	*1.8*	*2.7*	*1.8*	*1.3*	*1.5*
Unskilled	*1.9*	*2.4*	*1.8*	*2.7*	*1.5*	*1.6*	*1.6*	*0.0*	*2.1*	*5.0*	*2.8*	*2.2*
Farmer-manager	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*	*0.3*	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.2*
Homemaker	*57.5*	*56.4*	*56.8*	*56.1*	*56.7*	*51.9*	*60.7*	*60.7*	*58.0*	*58.9*	*61.8*	*54.7*
Other	*7.2*	*7.8*	*7.4*	*6.8*	*7.5*	*5.1*	*6.2*	*3.6*	*8.5*	*6.0*	*6.3*	*6.0*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										Withdrew from NIRMP
		Categorical or Diversified									Flexible	
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
22. Specialty Preference at Application												
Basic medical science	3.2	3.6	2.4	2.3	3.7	2.1	2.2	4.5	7.7	2.9	3.3	3.2
Family practice	8.3	17.5	6.6	5.7	7.4	3.4	6.2	3.0	5.1	6.8	9.2	9.8
Internal medicine	6.9	4.5	9.5	7.7	4.8	5.7	5.5	3.0	5.5	4.4	4.9	6.2
Obstetrics/Gynecology	2.5	1.6	1.9	9.0	2.9	2.1	1.8	0.0	1.3	2.0	3.0	2.8
Pediatrics	7.8	6.9	6.6	9.4	19.9	6.7	5.9	3.0	3.8	6.3	7.4	6.9
Psychiatry	4.2	2.4	3.9	2.4	3.6	25.6	3.0	7.6	3.0	3.9	4.0	4.2
Public health	3.8	5.5	3.7	4.1	4.5	2.3	2.0	3.0	0.9	1.5	3.5	5.0
Surgery and specialties	11.8	7.2	10.3	10.3	5.1	2.6	26.3	9.1	10.6	11.7	11.9	11.7
Other	4.9	3.6	5.0	5.0	4.3	3.4	4.1	10.6	11.5	9.3	6.5	5.0
Plan to specialize	9.5	5.8	10.5	8.9	9.5	9.8	10.9	10.6	7.7	9.8	10.2	8.6
Do not plan to specialize	5.3	10.8	4.3	5.7	4.3	4.1	3.2	4.5	4.7	5.9	6.2	6.4
Undecided	16.7	16.5	18.8	13.1	15.3	15.3	15.3	25.8	21.7	22.0	15.0	14.1
No response	15.0	14.1	15.4	16.4	14.6	16.8	13.5	15.2	16.6	13.7	15.0	16.0
23. Medical School Control												
Private (48)*	45.1	29.2	52.3	45.2	47.6	47.7	48.7	33.3	46.0	42.4	31.2	40.3
Public (66)	54.9	70.8	47.7	54.8	52.4	52.3	51.3	66.7	54.0	57.6	68.8	59.7

* Number of schools in category.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
24. Research Orientation[§]												
2 to 3 SD[†] below (7)*	4.4	1.1	0.8	2.7	1.3	0.5	1.6	0.0	0.0	1.5	2.6	2.5
1 to 2 SD below (10)	6.9	8.3	5.2	11.2	6.0	8.3	7.6	4.5	5.1	10.7	6.9	8.6
0 to 1 SD below (31)	23.1	27.2	21.4	25.9	20.6	20.5	21.7	21.2	18.7	19.0	32.0	23.4
0 to 1 SD above (55)	56.9	55.7	57.2	50.7	57.5	59.8	58.4	68.2	65.5	58.0	50.7	58.7
1 to 2 SD above (10)	10.4	6.5	13.5	9.2	13.5	10.6	9.6	6.1	9.8	10.2	7.4	6.0
2 to 3 SD above (1)	1.2	1.3	1.9	0.3	1.1	0.3	1.1	0.0	0.9	0.5	0.5	0.9
Mean	.22	.12	.34	.03	.29	.21	.20	.25	.35	.15	.05	.08
25. Practice Orientation[§]												
2 to 3 SD[†] below (4)*	1.8	1.3	1.9	2.0	2.2	3.4	2.3	0.0	0.0	2.0	1.4	1.2
1 to 2 SD below (11)	10.1	7.2	13.0	8.0	12.0	10.4	9.1	0.0	8.1	7.3	6.2	8.2
0 to 1 SD below (35)	28.1	25.6	27.1	30.8	29.3	31.3	30.4	25.8	31.9	29.8	29.2	26.4
0 to 1 SD above (54)	50.8	53.5	50.1	49.6	48.5	43.8	50.3	68.2	54.0	52.2	49.5	54.4
1 to 2 SD above (9)	8.7	11.8	7.4	9.5	6.9	10.6	7.6	4.5	5.5	8.8	13.0	9.4
2 to 3 SD above (1)	0.5	0.6	0.6	0.2	1.1	0.5	0.3	1.5	0.4	0.0	0.7	0.4
Mean	.09	.26	.00	.10	-.01	-.04	.07	.48	.12	.15	.23	.20
26. Emphasis on Graduate Medical Education[§]												
1 to 2 SD[†] below (8)*	4.9	4.1	3.9	9.7	3.6	5.4	4.9	3.0	3.0	5.9	6.1	7.4
0 to 1 SD below (66)	57.3	59.2	55.6	62.3	54.3	57.8	57.3	50.0	54.0	56.1	59.8	57.3
0 to 1 SD above (25)	26.2	25.2	28.2	19.5	28.1	24.4	25.4	37.9	30.7	24.9	22.7	24.8
1 to 2 SD above (9)	7.1	6.4	7.0	5.4	9.0	8.8	6.4	4.5	9.4	8.8	8.3	6.8

[†] Standard deviations above or below mean factor score.

* Number of schools in category.

[§] See Figure 4 for variables used to derive these characteristics.

Table 5 (continued)

Characteristics	Total	GME-I Specialty Choice (Categorical or Diversified)								Flexible	Withdrew from NIHMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	
Emphasis on Graduate Medical Education (continued)											
2 to 3 SD above (4)	3.1	3.8	3.3	2.6	3.6	3.4	2.9	4.5	2.6	3.9	2.6	1.9
Unknown (2)	1.5	1.4	2.1	0.6	1.2	0.3	1.1	0.0	0.9	0.5	0.6	1.7
Mean	-.01	.01	.04	-.17	.07	.02	-.04	.15	.07	.06	-.09	-.09
27. Size/Affluence[§]												
1 to 2 SD[†] below (16)[*]	4.2	4.9	3.4	4.8	4.8	2.3	3.6	6.1	0.9	3.9	7.2	4.9
0 to 1 SD below (45)	33.0	32.3	31.0	37.4	30.4	34.5	35.6	33.3	30.2	34.6	36.4	35.0
0 to 1 SD above (38)	41.0	39.7	41.8	38.9	41.3	40.9	41.1	37.9	40.9	41.5	36.6	43.3
1 to 2 SD above (11)	12.7	10.3	15.0	12.2	14.2	11.7	11.5	9.1	17.4	13.7	10.2	9.2
2 to 3 SD above (4)	9.1	12.8	8.8	6.6	9.3	10.6	8.1	13.6	10.6	6.3	9.6	7.6
Mean	.42	.45	.49	.29	.46	.44	.37	.37	.57	.32	.28	.28
28. Selectivity[§]												
2 to 3 SD[†] below (4)[*]	1.5	0.7	0.8	2.7	1.4	1.6	1.6	1.5	0.0	1.0	2.3	3.7
1 to 2 SD below (13)	10.2	9.9	8.2	11.8	8.4	9.3	9.7	10.6	8.1	10.2	14.8	16.1
0 to 1 SD below (36)	32.5	41.3	27.9	35.4	27.7	32.9	33.3	50.0	31.9	36.6	35.9	35.9
0 to 1 SD above (41)	39.1	37.8	41.7	35.3	40.8	38.9	40.6	30.3	38.7	39.0	38.1	32.3
1 to 2 SD above (15)	12.0	7.5	15.2	10.6	16.0	14.2	10.7	7.6	15.3	12.7	6.8	8.1
2 to 3 SD above (1)	1.0	0.1	1.4	0.6	1.3	0.8	1.0	0.0	1.3	0.0	0.5	0.8
Unknown (4)	3.6	2.6	4.8	3.6	4.3	2.3	3.1	0.0	4.7	0.5	1.6	3.1
Mean	.10	-.02	.25	-.03	.24	.15	.09	-.10	.31	.10	-.12	-.18

[†] Standard deviations above or below mean factor score.

[*] Number of schools in category.

[§] See Figure 4 for variables used to derive these characteristics.

Table 5 (continued)

29. Region and State of Undergraduate College	Total	GME-I Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
Region I	10.0	5.8	12.6	7.2	12.6	12.4	9.9	7.6	5.1	7.3	5.6	8.6
Maine	0.2	0.1	0.2	0.2	0.4	0.8	0.4	0.0	0.0	0.0	0.0	0.2
Vermont	0.3	0.4	0.3	0.5	0.4	0.8	0.3	0.0	0.0	0.5	0.0	0.3
Massachusetts	5.9	3.2	7.2	3.9	8.2	5.4	6.0	6.1	3.8	3.9	3.4	5.9
Connecticut	2.0	1.0	3.0	1.1	2.2	2.8	2.1	0.0	0.0	2.9	0.9	0.9
Rhode Island	0.9	0.6	1.1	1.1	0.7	1.8	0.6	1.5	0.9	0.0	0.8	0.7
New Hampshire	0.6	0.6	0.7	0.6	0.7	0.8	0.4	0.0	0.4	0.0	0.5	0.7
Region II	12.4	5.9	16.0	9.7	14.1	15.5	13.4	3.0	10.6	9.8	6.9	9.5
New York	10.7	5.2	14.0	7.4	12.8	13.7	11.4	3.0	9.4	8.8	5.4	7.8
New Jersey	1.7	0.7	2.0	2.0	1.3	1.8	2.0	0.0	1.3	1.0	1.5	1.5
Puerto Rico	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Region III	11.1	11.1	11.8	12.7	10.3	13.0	10.4	15.2	14.0	15.1	7.7	10.2
Pennsylvania	6.2	5.8	6.7	6.5	7.0	6.5	6.0	4.5	7.2	10.2	4.4	4.6
Delaware	0.1	0.3	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.2	0.3
D.C.	1.3	0.6	1.3	1.8	1.2	1.8	1.4	0.0	0.9	0.5	0.6	2.0
Maryland	1.8	1.5	2.1	2.4	1.2	2.6	1.2	3.0	3.0	2.4	1.3	1.8
Virginia	1.6	2.7	1.4	1.8	0.5	1.3	1.4	7.6	2.5	1.3	0.9	1.3
West Virginia	0.2	0.3	0.2	0.2	0.2	0.8	0.3	0.0	0.4	0.5	0.2	0.1
Region IV	9.5	10.0	8.6	12.9	8.2	7.8	9.2	7.6	5.5	12.7	8.4	12.1
Alabama	1.0	0.8	1.0	0.3	1.0	0.8	0.8	0.0	0.0	1.0	0.6	2.0
Florida	1.7	1.5	1.7	3.0	1.3	1.6	1.4	3.0	2.1	2.6	1.5	1.9
Georgia	1.1	0.7	1.2	2.7	0.7	1.3	1.1	0.0	0.0	0.5	1.3	1.1
Kentucky	1.2	2.1	0.8	1.5	1.6	1.6	1.7	0.0	0.9	3.4	0.6	0.9
Mississippi	0.3	0.1	0.3	0.0	0.2	0.3	0.2	0.0	0.0	0.5	0.4	0.5
North Carolina	2.3	2.8	2.1	2.6	2.4	1.6	2.5	4.5	0.4	3.9	1.8	2.5
South Carolina	0.3	0.4	0.2	0.5	0.1	0.0	0.2	0.0	0.0	0.0	0.4	1.0
Tennessee	1.5	1.5	1.3	1.8	2.0	0.8	1.3	0.0	2.1	1.0	2.0	2.1
Region V	19.1	22.4	18.8	17.8	19.8	16.6	19.1	24.2	19.6	20.5	21.5	15.8
Illinois	4.8	4.5	5.1	4.5	5.4	3.6	5.6	7.6	6.4	5.9	4.9	2.9
Indiana	2.5	3.3	2.3	2.7	2.1	2.8	2.4	0.0	2.6	2.9	2.5	2.3
Ohio	3.8	4.4	3.7	4.1	4.4	3.6	3.5	3.0	3.0	3.4	4.0	3.8
Minnesota	2.0	3.6	1.7	0.5	1.5	1.6	2.0	7.6	1.7	3.4	1.5	1.9
Michigan	3.9	4.6	4.1	4.8	3.3	3.1	3.3	3.0	3.4	3.4	5.5	3.1
Wisconsin	2.0	2.1	1.9	1.2	2.0	1.8	2.2	3.0	2.6	1.5	3.2	1.7
Region VI	5.6	6.2	4.0	7.5	4.7	5.2	6.1	4.5	8.5	6.8	10.7	6.0
Arkansas	0.8	1.1	0.5	0.6	0.5	1.3	0.6	0.0	0.9	0.0	3.4	0.4
New Mexico	0.1	0.2	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.2	0.1
Oklahoma	0.5	0.7	0.3	0.0	0.4	0.8	1.0	0.0	0.4	0.0	0.7	0.5
Texas	2.5	2.7	1.7	4.4	2.2	2.6	2.6	4.5	3.4	4.4	2.8	3.1
Louisiana	1.7	1.4	1.4	2.5	1.3	0.5	1.9	0.0	3.8	2.4	3.6	1.7

Table 5 (continued)

29. Region and State of Undergraduate College	Total	GME-1 Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
Region VII	5.1	7.6	4.3	6.0	4.3	5.4	4.2	4.5	7.7	4.4	5.7	5.6
Iowa	1.4	2.7	1.1	1.8	1.6	2.1	1.3	1.5	2.6	1.0	1.4	0.9
Kansas	1.0	1.4	0.8	0.3	1.2	0.8	0.9	0.0	1.7	0.5	1.8	1.1
Missouri	1.6	1.6	1.5	3.0	1.0	0.8	1.2	3.0	1.3	1.5	1.1	2.7
Nebraska	1.1	2.0	0.9	0.9	0.6	1.8	0.8	0.0	2.1	1.5	1.5	0.8
Region VIII	2.8	4.1	1.8	3.5	1.3	1.8	2.9	1.5	3.8	3.9	3.3	4.3
Colorado	1.1	2.2	0.8	0.6	0.5	1.3	0.8	1.5	1.3	1.0	0.7	1.7
Montana	0.2	0.3	0.1	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1
North Dakota	0.2	0.1	0.1	0.5	0.2	0.0	0.2	0.0	0.9	0.5	0.5	0.1
South Dakota	0.3	0.3	0.1	0.3	0.2	0.0	0.2	0.0	0.9	0.0	1.1	0.5
Utah	1.0	1.1	0.6	1.7	0.6	0.5	1.4	0.0	0.9	2.4	1.1	1.7
Wyoming	0.1	0.1	0.0	0.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Region IX	8.9	9.9	8.8	6.8	11.3	6.7	7.7	13.6	10.2	7.3	11.0	7.6
Arizona	0.6	0.6	0.4	0.9	0.2	0.3	0.6	0.0	0.9	0.5	0.9	0.9
California	7.6	8.5	7.9	5.3	10.0	6.0	6.4	12.1	8.1	5.9	9.1	5.8
Hawaii	0.2	0.3	0.1	0.2	0.4	0.0	0.1	1.5	0.9	0.0	0.6	0.3
Nevada	0.2	0.3	0.1	0.3	0.1	0.0	0.4	0.0	0.0	0.5	0.2	0.3
Trust Territories	0.3	0.2	0.3	0.2	0.4	0.5	0.3	0.0	0.4	0.5	0.1	0.3
Region IX	2.0	2.9	1.5	1.8	1.8	1.0	2.5	1.5	1.3	1.0	4.1	1.3
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idaho	0.1	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.3
Oregon	0.9	1.0	0.8	1.1	1.1	0.5	0.7	0.0	0.4	0.0	2.1	0.5
Washington	1.0	1.6	0.7	0.8	0.7	0.5	1.6	1.5	0.9	1.0	1.6	0.5
Foreign Undergraduate Institutions	0.1	0.0	0.1	0.2	0.1	0.3	0.3	1.5	0.0	0.0	0.0	0.4
Unknown	13.5	14.0	11.6	14.5	11.0	14.2	14.3	15.2	13.6	11.2	15.1	18.5

Table 5 (continued)

30. Region and State of Legal Residence at Application	Total	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
Region I	4.4	2.9	5.7	2.7	4.9	3.6	4.1	0.0	3.0	2.4	3.4	3.7
Maine	0.2	0.3	0.2	0.2	0.3	0.5	0.2	0.0	0.0	0.0	0.0	0.1
Vermont	0.3	0.4	0.2	0.5	0.2	0.5	0.3	0.0	0.9	0.0	0.1	0.3
Massachusetts	2.0	1.1	2.8	1.1	2.5	1.6	1.9	0.0	0.4	1.0	0.9	1.7
Connecticut	1.8	0.8	1.9	0.8	1.4	0.5	1.4	0.0	1.7	1.5	1.6	1.0
Rhode Island	0.3	0.1	0.5	0.3	0.4	0.3	0.2	0.0	0.0	0.0	0.5	0.2
New Hampshire	0.1	0.3	0.1	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.2	0.3
Region II	18.0	9.1	23.0	13.9	21.4	24.4	19.3	13.6	13.2	15.6	8.6	14.3
New York	13.9	6.5	18.5	10.4	17.6	17.9	14.5	6.1	12.3	12.2	5.5	9.6
New Jersey	3.6	2.6	4.1	3.2	3.4	5.2	4.4	6.1	0.9	3.4	2.8	2.7
Puerto Rico	0.5	0.0	0.4	0.3	0.4	1.3	0.4	1.5	0.0	0.0	0.4	2.0
Region III	12.4	13.2	13.1	13.3	12.4	15.0	11.3	22.7	14.0	13.2	8.4	11.4
Pennsylvania	6.9	7.1	7.1	7.2	7.4	9.1	7.0	9.1	8.1	9.8	4.8	5.5
Delaware	0.2	0.5	0.2	0.0	0.2	0.5	0.1	0.0	0.4	0.0	0.1	0.3
D.C.	0.4	0.1	0.4	0.2	0.1	0.3	0.4	0.0	0.4	0.0	0.2	1.2
Maryland	2.3	1.7	3.0	3.2	2.6	1.6	1.4	4.5	3.0	0.5	1.4	2.0
Virginia	2.0	3.2	2.0	1.8	1.3	1.6	1.7	7.6	1.7	1.5	1.2	1.9
West Virginia	0.7	0.7	0.5	0.9	0.8	2.1	0.7	1.5	0.4	1.5	0.7	0.5
Region IV	12.7	12.8	11.3	16.6	11.3	10.6	12.9	6.1	11.9	15.6	12.5	17.1
Alabama	1.2	0.8	1.1	1.1	1.3	1.6	1.0	0.0	0.0	1.5	1.1	1.9
Florida	2.8	2.5	2.8	4.1	1.8	2.1	2.8	3.0	4.3	2.9	2.5	3.5
Georgia	1.9	1.2	1.9	3.9	1.3	1.6	1.8	0.0	1.7	1.5	1.6	2.2
Kentucky	1.7	2.5	1.4	2.6	1.9	1.6	1.9	0.0	1.3	2.9	1.2	1.3
Mississippi	1.0	1.0	0.8	1.7	0.5	0.8	1.2	1.5	1.3	1.0	2.0	1.2
North Carolina	1.6	1.6	1.2	2.0	1.9	1.8	2.0	1.5	1.3	3.4	0.8	2.2
South Carolina	1.1	2.0	0.7	0.8	0.9	0.5	0.8	0.0	0.4	0.0	1.4	2.1
Tennessee	1.5	1.3	1.2	0.6	1.7	0.8	1.6	0.0	1.7	2.4	2.0	2.7
Region V	20.4	24.3	19.4	20.5	18.5	17.4	20.5	22.7	23.0	20.0	24.6	18.5
Illinois	6.2	6.0	6.5	8.3	6.0	4.1	6.8	9.1	6.8	6.3	5.4	4.9
Indiana	2.3	3.7	1.6	2.3	2.4	3.1	2.1	0.0	2.6	2.0	3.5	2.1
Ohio	4.2	4.8	4.3	3.5	4.3	3.1	3.8	1.5	3.8	3.4	5.3	4.1
Minnesota	2.1	3.6	1.7	1.1	1.3	1.6	2.2	7.6	2.6	2.4	1.5	2.6
Michigan	3.7	4.0	3.6	4.7	2.5	3.6	3.4	1.5	4.7	4.9	6.1	3.4
Wisconsin	1.8	2.2	1.7	0.8	2.0	1.8	2.2	3.0	2.6	1.0	2.9	1.3
Region VI	9.1	9.9	6.8	11.8	7.9	8.3	10.2	12.1	10.2	11.2	14.8	10.3
Arkansas	1.0	1.2	0.6	0.8	0.8	1.6	0.7	0.0	0.9	0.5	4.4	0.6
New Mexico	0.5	0.6	0.2	0.5	0.6	0.0	0.5	0.0	0.4	1.5	0.8	0.8
Oklahoma	1.1	1.5	0.8	0.9	0.7	0.8	1.7	6.1	0.0	1.0	1.3	0.9

Table 5 (continued)

30. Region and State of Legal Residence at Application	Total	GPE-I Specialty Choice										
		Categorical or Diversified									Flexible	Withdrew from NIRMP
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology		
Region VI (continued)												
Texas	4.9	5.3	3.9	7.8	4.3	5.2	5.2	6.1	6.0	6.3	4.6	5.0
Louisiana	1.7	1.3	1.3	1.8	1.4	0.8	2.1	0.0	3.0	2.0	3.7	2.0
Region VII	5.6	7.4	5.0	6.0	5.1	6.7	4.9	4.5	5.5	5.9	5.5	6.0
Iowa	1.3	2.2	1.1	1.2	1.3	1.8	1.3	1.5	1.3	1.0	1.4	1.0
Kansas	1.2	1.5	1.0	0.6	1.4	1.6	0.9	1.5	1.3	1.0	1.8	1.3
Missouri	1.8	1.6	1.9	3.3	1.4	1.6	1.5	1.5	1.3	1.0	0.5	2.7
Nebraska	1.3	2.1	1.1	0.9	1.0	1.8	1.2	0.0	1.7	2.9	1.9	0.9
Region VIII	2.8	4.2	2.0	2.7	2.8	1.8	2.6	0.0	4.7	3.4	4.4	3.2
Colorado	1.0	2.0	0.8	0.5	1.1	0.5	0.7	0.0	1.7	0.5	0.9	0.9
Montana	0.3	0.4	0.2	0.0	0.6	0.0	0.2	0.0	0.9	0.0	0.2	0.2
North Dakota	0.5	0.4	0.4	0.3	0.2	0.3	0.4	0.0	0.9	0.5	1.3	0.5
South Dakota	0.3	0.4	0.1	0.5	0.2	0.3	0.3	0.0	0.4	0.0	1.2	0.3
Utah	0.8	0.8	0.5	1.4	0.7	0.8	0.9	0.0	0.9	2.4	0.8	1.1
Wyoming	0.1	0.1	0.0	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Region IX	9.2	9.9	8.7	7.4	10.9	7.8	8.6	13.6	11.1	6.8	11.0	9.4
Arizona	0.7	0.8	0.5	0.8	0.6	0.5	1.0	0.0	1.3	0.5	0.8	0.9
California	7.7	8.0	7.8	5.9	9.5	6.5	6.8	12.1	8.5	5.4	8.5	7.5
Hawaii	0.4	0.4	0.3	0.3	0.5	0.5	0.3	1.5	1.3	0.5	1.2	0.5
Nevada	0.3	0.6	0.1	0.5	0.3	0.3	0.5	0.0	0.0	0.5	0.5	0.5
Trust Territories	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Region X	2.4	3.9	1.9	1.7	2.1	2.1	2.4	1.5	0.4	2.4	4.2	2.0
Alaska	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1	0.1
Idaho	0.2	0.7	0.1	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.4	0.3
Oregon	1.0	1.1	0.9	0.6	1.2	0.3	0.8	0.0	0.0	0.5	2.2	0.9
Washington	1.1	2.1	0.9	0.9	0.8	1.8	1.4	1.5	0.0	2.0	1.5	0.7
Foreign Graduates of U.S. Medical Schools	1.2	0.5	1.1	1.8	1.2	0.5	1.7	0.0	0.4	1.5	1.3	1.3
Legal Residence Unknown	1.8	1.8	1.8	1.7	1.4	1.8	1.4	3.0	2.6	2.0	1.2	2.7

women's roles, changes which have been most pronounced during the very period when these women were in medical school. On the other hand, that traditionally feminine specialty, pediatrics, remained so with one-third of those choosing the specialty being women (in comparison to women constituting about 16 percent of total graduates). Compared to their total representation, a slightly greater proportion of women chose pathology while slightly smaller proportions than in the total group chose radiology and medical specialties.

The proportions of Afro-Americans/blacks (Table 5, section 3) choosing each of the six application/graduation identical specialties decreased and is probably a result of those who were undecided at application (most of whom were white) choosing these specialties. Nevertheless, as at application, the percent of those choosing ob/gyn who were black was greater than the percent of blacks in the total group (13.6 percent and 5.7 percent, respectively). Smaller proportions of blacks characterized the groups choosing medical specialties, pathology and radiology, again representing, not a decrease in the numbers of blacks, but increased proportions of both whites and Hispanic-Americans. The proportion of Hispanics among those who chose each of these three specialties was almost twice the proportion which they represented in the total group and in the other specialty-preference groups.

Like the students who chose family practice at application, those who chose family practice at graduation were slightly older as a group when they matriculated than were students who chose other specialties (Table 5, section 4). This was true in spite of the fact that they spent slightly fewer years in medical school. Those groups which chose internal medicine, pediatrics and surgery were, on the average, younger at graduation than other groups. Nine percent of those who chose medical specialties were only 23 or 24 years old at graduation, which compares to 5 percent for the group as a whole; but, because the number choosing medical specialties is so small (66) compared to the total group (13,222), the higher proportion of younger graduates might be more artifactual than actual.

The mean number of years in medical school (Table 5, section 5) spent by each specialty-preference group differed little from group to group. Among those who chose psychiatry, however, there was a greater percentage who took only 3 years to complete medical school and also a greater percentage who took 5 and 6 years. These relationships in

opposite directions cancel each other out when the average for the group is reported.

A reflection of the fact that those who chose a particular specialty at graduation, for the most part, were not the same individuals as those who preferred the specialty at application can be seen in the higher mean MCAT scores at graduation (Table 5, sections 6, 7, 8, 9) for the same specialty-preference groups. Since the mean scores of those who were undecided or did not respond at application were higher than those for most groups, it is the inclusion of these people in certain of the graduation specialty groups which raises the groups mean MCAT scores. In spite of the general increase in scores, however, the standings of the different graduation specialty groups relative to each other on MCAT scores remain quite like the relative standings of the application groups, with those in ob/gyn, family practice and surgery having the lowest scores on all four subtests and those who preferred psychiatry and internal medicine having the highest scores. The scores of those who chose medical specialties, pathology and radiology at graduation also tended to be among the highest, while those who chose flexible programs were among the lowest. As with MCAT scores and with GPA's at application, GPA's at graduation (Table 5, sections 10, 11) show essentially the same standings among the different specialty groups. For the sake of brevity, they will not be discussed again.

The type of undergraduate institution from which the different graduation specialty groups entered medical school is also similar to that for the application specialty groups. Pediatrics, internal medicine, psychiatry and surgery each included 2 to 5 percent more students from private colleges than were in the total group, while flexible programs, family practice and radiology each attracted 2 to 10 percent more students from public colleges (Table 5, section 12). Any relationships which might exist between size of the undergraduate institution (Table 5, section 13) and graduation specialty choice are not easily detected, but those between selectivity of the undergraduate college (Table 5, section 14) and specialty choice are evident. Thus, students who chose flexible and family practice programs were on the average, graduates of less selective colleges than students who chose other specialties. Those who chose internal medicine, pediatrics and psychiatry generally graduated from the more selective colleges with the proportion coming from the "most selective" colleges two to three times greater than the corresponding proportion among students who chose other

specialties. Again, these results are not different from those found for the application specialty groups.

Results based on percent of science course hours are quite similar for both application and graduation specialty choice groups while the results based on undergraduate major show some changes (Table 5, sections 15, 16). The six identical application-graduation specialty groups all included about 3 to 5 percent more students at graduation than at application who majored in "other" areas. Also, the distribution of majors for those who chose psychiatry at graduation was somewhat less eccentric than that for the corresponding group at application. Thus, the percent of biological sciences majors was about 6 percent greater (26.9 percent at application versus 32.6 percent at graduation) and more nearly resembled the percent of biological sciences majors in the total group (44.3 percent of NIRMP participants, 43.8 percent of all graduates). The percent of "premed" majors among those who chose psychiatry was halved (33.3 percent of the application group, 17.9 percent of the graduation group), conforming somewhat more closely to that for the total group (9.7 percent at application and 9.5 percent at graduation). Similarly, fewer of those who chose ob/gyn at graduation were biological sciences majors and more were social sciences, "premed" and "other" majors than were those who chose this specialty at application.

In regards to the four graduation specialty groups which do not have application counterparts, the distribution of undergraduate majors of the flexible group resembled those of the family practice and internal medicine graduation groups. Those who chose GME-I programs in medical specialties included fewer biological sciences majors and more premed and "other" majors than did other groups and, in this regard, were similar to those who chose psychiatry. In contrast, pathologists included more biological science majors and also more who majored in "other" areas. The pattern of undergraduate majors of those who chose radiology was unique. It was composed of fewer biological sciences majors than all other groups besides those who preferred psychiatry and more physical sciences majors than were any of the other specialty-preference groups.

Of the 42 percent of the NIRMP participants who were in the "undecided" major specialty division at application, 27 percent had indicated either that they planned to specialize but were undecided as to specialty or that they were undecided about whether to specialize or not (see Table 3,

page 31). The median parental incomes of these latter two groups were the two highest of all the application specialty-preference groups ($17,228 and $16,914 versus $15,463 for the total group) (Table 4, section 17, page 40).[28] The other 15 percent of the NIRMP participants in the "undecided" major specialty division at application had given no response to the specialty-preference question. Ninety percent of them also gave no response to the question on parental income. The median parental income of the 10 percent of non-respondents for whom there was information was approximately $1,000 less than that for the total group ($14,426 versus $15,463). The net effect of including in the graduation specialty-preference groups both the relatively large number of high income students specified above and the smaller number of non-respondents with their lower incomes is an increase in median parental income for the family practice, internal medicine, ob/gyn and pediatrics groups and a decrease for the psychiatry and surgery groups.

In spite of more students from backgrounds of lower income being included in the surgery group at graduation, it was the specialty preference group with the second highest median income (Table 5, section 17). The group with the highest parental income was that which chose medical specialties. While the latter constituted less than 1 percent of the NIRMP participants (0.56 percent), nevertheless, 42 percent were from backgrounds where parental income was $20,000 or more. This compared to 28 percent and 30 percent for the family practice and ob/gyn groups. In interpreting the data on parental income, it should be borne in mind that it is the single data item in the present study whose validity is most open to question. This item is based on the reporting by students on the questionnaire given when they take the MCAT of their parents' incomes. Many students simply do not know their parents' incomes. Furthermore, it is not unlikely that the situation in which the information is collected is not especially conducive to their caring much about the accuracy

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[28] These are combined gross parental incomes for the previous year at the time the applicant took the MCAT. Since most of the 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported parental income for 1970.

of their response. Finally, it is the item with the lowest response rate (78 percent).

The educational level of the fathers (Table 5, section 18) of students in the graduation specialty-preference groups was, for the six identical groups, essentially the same as for the fathers of students in the application groups. A notable exception was the 6 percent increase in fathers who went to graduate or professional school and the 8 percent decrease in fathers who had some years of high school of students who chose ob/gyn at graduation. It was previously pointed out that income, education and occupation are highly interrelated and this is borne out in the ob/gyn group by concomitant increases in income ($12,954 at application and $14,108 at graduation) and in occupational level (36 percent of fathers in a profession at application and 42 percent at graduation) (Table 5, section 20). (These obtained interrelationships give greater credence to the data on parental income.)

Comparing father's education across graduation specialty-preference groups, one sees that fathers of future family practitioners and obstetricians/gynecologists had the fewest years of education, while fathers of medical specialists had the most. Fathers of those who chose pediatrics at graduation had more years of education than did fathers of the corresponding group at application. While the overall level of mother's education (Table 5, section 19) was lower than for father's education, the patterns which it showed with specialty choice at graduation were basically similar to those for father's education.

The proportion of physician fathers among those who chose surgery and pathology was twice that of students who chose GME-I programs in family practice (20 percent versus 10 percent). Fathers of those who chose medical specialties, radiology and flexible programs also tended to include more physicians and other health professionals than was true of the fathers of other students. The proportion of fathers of future family practitioners who were farmer/managers (6 percent) was twice that of all other specialty groups, except of those who chose flexible programs (4 percent). Fifty percent of the fathers of future pediatricians were either professionals in non-health fields or owner/managers, as were the fathers of future psychiatrists.

Patterns reflecting socioeconomic status repeated themselves in the relationship of mother's occupation (Table

5, section 21) to specialty choice, even though over half of the mothers of students in all groups were homemakers. Again, those students who chose surgery had one of the highest proportions of physician parents, in this case, mothers. The groups which chose pediatrics and medical specialties also had high proportions of physician mothers. In addition, those who intended careers in medical specialties had high proportions of mothers in other health professions and in non-health professions. A greater proportion of the mothers of those who chose psychiatry than of those who chose other specialties were occupied other than as full-time homemakers and greater proportions were in clerical/sales, owner/manager and other professional occupations.

b. Medical School Characteristics: Although the 13,222 applicants to the 1976 NIRMP included 55 percent who graduated from medical schools which were primarily publicly controlled, 71 percent of the group which preferred first-year residencies in family practice were from public institutions (Table 5, section 23). The groups which preferred flexible and medical specialties programs also tended to include disproportionate numbers of public medical school graduates (69 percent and 67 percent respectively), while students who preferred internal medicine had more often graduated from privately controlled medical schools (52 percent).

Forty-eight schools had factor scores for research orientation (Table 5, section 24) which were below the mean, while 66 had scores which were above the mean. They graduated 31 percent and 69 percent of the NIRMP applicants, respectively. Greater percentages of those students who chose family practice, ob/gyn and flexible programs came from the 48 schools which were below the mean on research orientation than did students who chose other specialties. In particular, twice as many of those who chose ob/gyn graduated from schools which were 1 to 2 standard deviations below the mean on research orientation than did those who chose medical specialties, pathology and internal medicine. Fifteen to 20 percent more of the students who chose medical specialties and pathology came from schools 0 to 1 standard deviation above the mean on research orientation than did those who chose flexible or ob/gyn programs.

Scanning the mean research orientation factor scores of the medical schools attended by the students in the various specialty preference groups, it can be seen that those for

the groups which chose pathology and internal medicine were the highest (.35 and .34, respectively), while those for the ob/gyn, flexible, withdrawn and family practice groups were the lowest (.03, .05, .08 and .12, respectively).

Compared to the 60 percent of all NIRMP applicants who graduated from schools above the mean on practice orientation (Table 5, section 25), 74 percent of those who chose medical specialties and 66 percent of those who chose family practice came from such practice-oriented schools. Only 55 percent of those who preferred a GME-I program in psychiatry came from practice-oriented schools and the mean practice orientation factor score of their medical schools was the lowest of all (-.04). Next lowest were the scores of the schools attended by those who chose pediatrics and internal medicine (-.01 and .00, respectively), while the group which had attended medical schools with the highest mean practice-orientation factor score was that which chose medical specialties (.48), followed by the family practice and flexible program groups (.26 and .23, respectively).

Obstetricians/gynecologists more often graduated from schools below the mean on graduate medical education emphasis (72 percent) (Table 5, section 26) than did any other specialty group (62 percent of the total group, 58 percent of pediatricians, 60 percent of internists). They also were more often the graduates of smaller, less affluent schools (42 percent graduating from schools below the mean) (Table 5, section 27) compared to 37 percent of the total and of those who chose family practice, 35 percent of those who chose pediatrics, 34 percent of those who chose internal medicine, and 31 percent of those who chose pathology.

The medical schools of those who chose ob/gyn, and flexible GME-I programs and of those who withdrew from NIRMP had the lowest mean factor scores for emphasis on graduate medical education and for size/affluence, while the size/affluence and selectivity (Table 5, section 28) of the medical schools attended by those who chose pathology were higher than for any other specialty preference group. Schools above the mean on selectivity tended to graduate greater proportions of those who chose pediatrics and internal medicine and smaller proportions of those who preferred family practice and ob/gyn.

3. Student and Medical School Characteristics

Given the trends evidenced in the cross-tabulations of medical school characteristics and GME-I specialty choice in Table 5, the question arises whether these findings might not be due to the fact that students with certain specialty preferences and with certain characteristics attend certain types of medical schools. If the latter is true, the conclusion which may be drawn is that the medical school is the primary influence on specialty choice because of the type of student who matriculates rather than because of any professional socialization which might result from the values held by the faculty, residents, or other students.

Inspection of the bivariate tabulations in Table 5 does reveal definite patterns between specialty preferences and medical school characteristics. Before quickly summarizing these patterns, let it be noted that the different medical school characteristics are not independent and therefore may be intercorrelated, but not to the extent that they duplicate each other. While no direct test of these interrelationships was made, the likelihood of their existence can be seen in their patterns of relationship to specialty choice. The relationships suggest that research orientation, emphasis on graduate medical education, size/affluence and selectivity are positively related to each other and negatively related to practice orientation.

The proportions of students at application with preferences for family practice and other primary care areas, versus those with preferences for basic medical science and "second-contact" medical specialties who had attended the different types of medical schools attest both to the interrelationships among the medical school characteristics and to the relationship between student specialty preference and type of medical school attended. On almost all of the medical school characteristics, the proportions of students who preferred these specialties, i.e., primary care versus second contact, were at each end of the range, i.e., were most different from the total group of NIRMP participants and from each other. Thus, 31 percent of the total group attended schools which were not research oriented (below the mean factor score on research orientation), while 43 percent of those who preferred family practice, 25 percent of those who preferred "other" specialties, 27 percent of those who preferred psychiatry and 29 percent of those who preferred basic medical science attended these schools.

Schools which are practice-oriented (above the mean) had enrolled 60 percent of the total group, but 67 percent of those who preferred basic medical science and psychiatry at time of application. Schools with a small graduate medical education component were attended by 63 percent of the total group, by 72 percent of those who intended careers in family practice and 69 percent of those who planned not to specialize, but by only 57 percent of those who intended careers in basic medical science and in "other" specialties. Smaller, less affluent medical schools were attended by 37 percent of the NIRMP participants, by 45 percent of future family practitioners and 44 percent of future obstetrician/gynecologists, but by only 34 percent of basic medical scientists and 35 percent of potential internists and psychiatrists. Finally, 43 percent of the total group attended less selective medical schools while 58 percent of those who preferred family practice and 52 percent of those who preferred ob/gyn did. Only 34 percent of those who preferred basic medical science attended the less selective schools.

This examination of the relationship between early specialty preference and type of medical school attended is an indirect method of distinguishing whether it is the medical school or selective input into the medical school which is responsible for the relationships between medical school characteristics and specialty choice. A more direct examination is that presented in the following section which juxtaposes change/stability in specialty choice against medical school characteristics.

4. Change and Stability in Specialty Choice

Table 3 (page 31) showed that only 28 percent of the 1976 NIRMP participants chose specialties in the same *major* group (primary care, ob/gyn, surgery and other) at both application and at graduation. It was pointed out that the measure of specialty choice/stability which is thus obtained (i.e., by comparing the application and graduation major specialty-group choices for each student) overestimates the incidence of stability by ignoring changes of specialty within the major group. Thus, a shift from general practice to internal medicine is considered a stable choice of primary care.

Section 24 of Table 5 presents the distributions of graduation specialty choices for each of the groups which preferred a particular specialty at application. The

estimate of specialty choice stability obtained from these distributions, based as they are on individual specialties, rather than on major groupings, is more restricted and indicates that only 14 percent of the NIRMP participants had stable specialty preferences; however, this figure is an underestimate for the following reason. Since only 6 of the 12 possible response categories at application are duplicated in the 10 categories at graduation, there are 10 non-replicated categories (6 at application and 4 at graduation), the likelihood of identical responses. Basing the estimate of stability on the 58 percent of NIRMP participants who had indicated a specialty preference at application gives yet another figure; thus, of those who specified one of the six replicated specialties at application, a total of 28 percent stayed with their original choice. It is interesting to note that this is the same percentage as that of all NIRMP participants who chose the same *major* specialty division at both application and graduation. In sum, then, the most precise statement regarding the overall extent of specialty choice stability which can be made is that it is somewhere between 14 and 28 percent of all NIRMP participants and 47 percent of those with specialty preferences at application.

Does stability of choice vary by specialty? The data of Table 5 would seem to indicate an affirmative response. Twenty-six percent of those choosing psychiatry and surgery at graduation had chosen these same specialties at application, while only 9 percent of those choosing ob/gyn and 10 percent of those choosing internal medicine reaffirmed their original choices. The corresponding percentages for family practice and pediatrics were 18 percent and 20 percent, respectively. Again, the picture viewed from specialty choice at application is different. Thus, 18 percent of those who chose psychiatry at application chose it again at graduation. For surgery, the corresponding percentage was 27 percent; for ob/gyn, 18 percent; for internal medicine, 49 percent; for family practice, 25 percent; and for pediatrics, 22 percent.

About 30 percent of each graduation specialty group was comprised of students who had initially been undecided (or had not responded). The two exceptions were medical specialties and pathology which included 41 percent and 38 percent, respectively, who had initially been undecided or did not respond. Among those choosing family practice at graduation, the proportion who had initially declared that they did not plan to specialize was twice that of other groups, while the proportion who had declared that they

intended to specialize but did not indicate a specific specialty was half that of other groups.

The validity of combining the different individual specialties into four major groups can be seen in the patterns of changes. Those who had originally preferred basic medical science constituted greater proportions of those who chose pathology and other medical specialties than they did of other specialties. Those who had originally intended family practice as a career and who did not remain with their original choice avoided psychiatry, medical specialties and pathology for flexible, pediatrics, radiology, and internal medicine programs. Similarly, those with an early preference for pediatrics who switched to other specialties were attracted to the other primary care fields and avoided medical specialties and pathology in their decisions for GME-I programs. Medical specialties attracted a greater proportion of those with a preference for psychiatry at application than did other specialties, particularly family practice and ob/gyn. Family practice, pediatrics and especially psychiatry were avoided by those who, at application, had preferred surgery.

Are there certain characteristics of either the student or of his/her medical school which are associated with stable specialty choices or shifts from certain specialties to others? The data of Table 6 should help to answer this question, but first let us consider the extent of stability and shifting and, where shifting does occur, the direction of the shifts.

Using the numbers in section 1 of Table 6 to calculate percentages shows that 71 percent of the students with stable specialty preferences preferred primary care specialties and that 70 percent of those choosing primary care at application did not change their preference. Retention rates for the other three major specialty groups were 21 percent for ob/gyn, 36 percent for surgery and 21 percent for "other" specialties. The percentages of students who switched to primary care were: 64 percent of the undecided, 67 percent of those who decided against ob/gyn, 74 percent of those who decided against surgery and 79 percent of those who decided against "other" specialties. Students who switched out of primary care went into surgery and "other" specialties in twice the numbers that they went into ob/gyn.

Table 6

U.S. Medical School Graduates Participating in the 1976 NIRMP: Percentage Distributions of Student Premedical Background and Medical School Characteristics for Stability of Specialization Plans from Application to Graduation

Characteristics		No.	CHANGE††																No CHANGE			
			Undecided†				Ob/Gyn			Surgery§			Primary Care¶			Other**						
	Total	Ob/Gyn	Surgery§	Primary Care¶	Other§§	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
1. All Students*	11,728	255	749	3,133	740	34	154	41	68	659	167	189	394	416	91	214	1,174	60	497	2,309	384
2. Sex																					
Male	83.2	77.6	89.7	82.8	80.9	100.0	64.3	51.0	97.1	95.1	94.0	77.8	86.0	79.3	70.3	87.9	78.4	66.7	96.6	80.8	82.3
Female	16.1	21.2	9.2	15.4	17.2	0.0	35.7	39.0	2.9	4.9	6.0	22.2	14.0	20.7	29.7	12.1	21.6	33.3	3.4	19.2	17.7
Unknown	0.7	1.2	1.1	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Racial/Ethnic Identity																					
Afro-American/Black	5.1	7.8	4.4	2.6	2.6	23.5	18.2	17.1	13.2	5.2	3.6	13.8	5.1	4.8	16.5	6.5	5.3	33.3	4.6	5.6	6.0
American Indian	0.3	0.8	0.1	0.2	0.0	0.0	0.0	0.0	1.5	0.5	0.6	0.0	0.5	0.2	0.0	0.5	0.3	0.0	0.4	0.4	0.0
Asian-American/ Oriental	0.5	0.0	0.1	0.3	0.5	0.0	0.0	0.0	1.5	0.6	0.6	3.7	0.5	1.4	0.0	0.0	0.9	3.3	0.2	0.6	0.3
Caucasian/White	71.5	54.5	63.3	62.2	60.5	55.9	70.8	73.2	70.6	80.6	84.4	73.0	80.7	76.9	74.7	80.8	79.0	46.3	83.7	70.2	78.4
Hispanic-American	2.4	1.2	1.9	1.7	2.3	8.8	2.6	2.4	4.4	2.6	5.4	1.1	1.5	3.8	4.4	2.3	3.6	1.7	2.0	2.4	4.7
Other	3.0	2.4	1.9	2.0	1.5	5.9	3.2	4.9	4.4	4.2	1.2	2.6	3.3	3.4	1.1	4.2	3.4	6.7	3.4	4.2	2.3
Unknown	17.2	33.3	28.3	31.0	32.6	5.9	5.2	2.4	4.4	6.4	4.2	5.8	8.4	9.4	3.3	5.6	7.6	6.7	5.6	6.5	8.3
4. Age at Matriculation																					
20 years and under	4.2	2.4	4.3	4.3	3.4	2.9	4.5	2.4	2.9	5.6	4.8	5.3	4.1	4.6	4.4	4.2	3.7	3.3	6.6	4.0	3.4
21 - 22	58.4	60.4	58.9	61.7	56.1	50.0	57.1	19.0	55.9	64.6	61.7	52.4	56.3	51.7	53.8	51.4	54.5	56.7	61.0	58.8	49.7
23 - 24	19.5	14.9	18.8	17.5	21.5	26.5	18.8	29.3	17.6	19.1	19.2	20.6	20.1	23.8	26.4	24.3	22.2	20.0	20.5	18.5	21.9

* The figures in this row are frequencies rather than percentages.
† Includes undecided, "plan to specialize, specialty unknown," and no response.
§ Includes surgery and surgical specialties.
¶ Includes family practice, internal medicine, pediatrics and "do not plan to specialize."
** Includes basic medical sciences, psychiatry, public health and "other."
†† Includes family practice, internal medicine, pediatrics and general practice.
§§ Includes flexible, psychiatry, medical specialties, pathology and radiology.
†† Indicates change from application (upper row of heading) to graduation (lower row of heading).

Table 6 (continued)

Characteristics	Total	Undecided				CHANGE												NO CHANGE			
		OB/Gyn	Surgery	Primary Care	Other	OB/Gyn			Surgery			Primary Care			Other			OB/Gyn	Surgery	Primary Care	Other
						Surgery	Primary Care	Other	OB/Gyn	Primary Care	Other	OB/Gyn	Surgery	Other	OB/Gyn	Surgery	Primary Care				
4. Age at Matriculation (continued)																					
25 - 26	8.5	10.6	8.4	7.2	8.1	14.7	8.4	9.8	14.7	6.8	8.4	10.6	9.4	9.9	8.8	11.2	9.5	8.3	7.4	8.7	11.7
27 - 28	4.2	3.5	3.9	3.4	4.2	5.9	4.5	2.4	2.9	2.7	3.8	4.2	6.6	4.9	2.2	3.3	5.1	3.3	2.2	4.9	7.3
29 - 30	2.3	3.9	2.1	1.9	2.4	0.0	1.9	9.8	2.9	0.9	1.2	3.2	1.8	3.1	1.1	2.8	2.7	3.3	1.6	2.6	2.3
31 - 32	1.0	1.6	1.5	0.8	1.5	0.0	1.9	2.4	2.9	0.2	0.6	2.6	1.3	0.7	0.0	0.5	1.4	1.7	0.4	0.9	2.1
33 - 34	0.6	0.8	0.5	0.7	0.5	0.0	1.3	2.4	0.0	0.0	0.6	0.5	0.3	1.0	0.0	1.9	0.3	0.0	0.2	0.7	0.8
35 years or more	0.6	0.4	0.5	0.6	0.4	0.0	1.3	2.4	0.0	0.0	0.0	0.5	0.3	0.5	3.3	0.5	0.6	3.3	0.0	0.8	0.8
Unknown	0.7	1.6	1.1	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Mean Age	22.9	23.1	22.9	22.8	23.0	23.0	23.2	24.3	23.1	22.4	22.5	23.1	23.0	23.1	23.0	23.2	23.1	23.3	22.5	23.0	23.5
5. Years in Medical School																					
2 years	2.1	4.7	3.6	3.7	2.2	0.0	0.6	2.4	1.5	1.5	0.6	1.6	1.8	0.3	1.1	1.4	1.5	0.0	0.6	0.7	1.3
3 years	12.5	8.2	10.9	9.9	10.9	14.7	9.1	22.0	17.6	11.2	13.2	11.6	16.0	15.1	12.1	12.1	12.9	13.3	13.1	17.5	13.8
4 years	79.7	79.6	81.3	80.2	76.4	70.6	79.2	73.2	70.6	83.2	77.2	82.5	78.7	79.1	83.5	82.7	80.2	68.3	82.5	75.6	77.6
5 years	3.6	3.9	1.5	3.2	5.5	14.7	9.1	2.4	8.8	3.5	6.0	2.6	3.0	4.3	3.3	3.7	3.5	16.7	3.2	2.7	6.3
6 years or more	1.4	2.0	1.5	2.0	3.0	0.0	1.9	0.0	1.5	0.6	3.0	1.6	0.5	1.0	0.0	0.0	1.9	1.7	0.6	0.5	1.0
Unknown	0.7	1.6	1.1	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Years	3.9	4.0	3.9	3.9	4.0	4.0	4.1	3.8	4.0	3.9	4.1	4.1	3.9	3.9	3.9	3.9	4.0	4.1	3.9	3.9	3.9
6. MCAT - Verbal Score																					
701 - 800	3.9	1.6	2.7	5.0	4.5	0.0	3.9	2.4	0.0	2.1	3.6	2.6	2.3	2.6	0.0	5.6	4.7	0.0	2.6	4.1	5.5
601 - 700	33.1	26.3	26.8	35.9	33.2	26.5	25.0	34.1	14.7	30.5	20.1	21.2	22.8	33.9	28.6	35.5	39.9	23.3	26.8	33.5	42.4
501 - 600	36.1	35.3	38.5	33.5	33.6	32.4	42.9	36.6	35.3	43.1	34.7	42.3	42.9	34.4	30.8	35.0	35.8	30.0	35.0	37.1	33.9
401 - 500	20.1	25.5	21.0	15.3	16.8	32.4	20.1	22.0	41.2	20.6	28.7	28.0	27.4	25.0	35.2	20.1	17.5	33.3	28.8	21.8	16.1
301 - 400	3.2	3.5	3.7	2.2	2.6	8.8	7.1	4.9	5.8	3.6	4.8	5.8	4.6	3.8	5.5	3.3	2.0	10.0	5.6	3.4	2.1
201 - 300	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.1	3.3	0.2	0.1	0.0

Table 6 (continued)

Characteristics	Total	Free	CHANGE															NO CHANGE			
			Undecided				Ob/Gyn			Surgery			Primary Care			Other						
			Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
6. MCAT - Verbal Score (continued)																					
Unknown	3.4	7.8	7.3	8.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Score	564.0	545.1	552.4	577.7	572.2	518.2	549.2	560.1	507.5	553.9	545.6	535.5	539.7	554.7	536.0	570.5	578.0	510.3	539.4	562.5	584.4
7. MCAT - Quantitative Score																					
701 - 800	13.9	8.6	14.0	17.5	16.9	8.8	8.4	9.8	7.4	12.4	10.8	5.3	9.4	7.5	11.0	14.5	16.5	3.3	10.7	12.0	14.3
601 - 700	41.6	36.1	41.9	45.8	39.1	23.5	40.3	26.8	42.6	50.4	44.3	43.9	40.6	41.1	36.3	46.3	47.2	25.7	42.1	46.0	50.8
501 - 600	29.0	35.3	28.3	23.9	28.6	44.1	30.5	46.3	29.4	27.6	30.5	33.3	37.1	38.5	34.1	31.3	26.9	31.7	36.8	31.1	26.6
401 - 500	7.8	10.2	7.1	4.1	5.8	17.6	16.9	17.1	20.6	7.9	13.2	15.3	10.7	10.3	15.4	7.5	7.9	25.0	9.3	9.3	7.0
301 - 400	1.3	2.0	1.3	0.7	0.3	5.9	2.6	0.0	0.0	1.5	1.2	2.1	2.3	2.4	3.3	0.5	1.4	11.7	1.2	1.4	1.3
201 - 300	0.1	0.0	0.0	0.0	0.1	0.0	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.3	0.1	1.7	0.0	0.2	0.0
Unknown	3.4	7.8	7.3	8.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Score	615.2	593.2	617.4	633.4	625.1	565.9	579.0	579.4	587.8	617.4	600.5	586.3	596.5	590.1	584.3	615.9	620.6	529.3	604.4	608.1	622.3
8. MCAT - Science Score																					
701 - 800	5.0	2.0	3.6	6.1	5.9	0.0	2.6	2.4	4.4	4.3	1.8	3.7	4.1	4.6	2.2	9.8	6.0	0.0	4.6	4.6	5.2
601 - 700	36.0	32.9	36.6	38.2	32.8	14.7	26.6	24.4	17.6	39.5	35.3	26.5	33.0	31.0	27.5	33.2	37.0	23.3	34.8	37.1	39.1
501 - 600	42.0	37.3	40.7	38.6	41.1	47.1	45.5	48.8	47.1	41.1	44.9	47.1	45.9	48.3	44.0	45.8	44.5	33.3	42.5	43.6	40.9
401 - 500	11.8	15.7	10.5	8.3	9.9	23.5	19.5	19.5	29.4	12.7	16.8	20.6	14.5	13.2	22.0	8.9	10.6	28.3	15.3	12.8	12.5
301 - 400	1.8	3.9	1.2	0.7	0.9	14.7	5.2	4.9	1.5	2.1	1.2	1.6	2.3	2.9	4.4	2.3	1.9	13.3	2.6	1.9	2.3
201 - 300	0.1	0.4	0.0	0.1	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.5	0.3	0.0	0.0	0.0	0.0	1.7	0.2	0.1	0.0
Unknown	3.4	7.8	7.3	8.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Score	580.3	562.2	581.1	592.3	586.6	518.2	552.1	550.1	540.1	580.3	572.4	557.4	570.3	567.7	553.1	587.1	583.9	514.8	572.0	577.7	581.8

Table 6 (continued)

Characteristics	Total	Undecided				CHANGE												NO CHANGE			
		Ob/Gyn	Surgery	Primary Care	Other	Ob/Gyn			Surgery			Primary Care			Other			Ob/Gyn	Surgery	Primary Care	Other
						Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care				
9. MCAT - General Information Score																					
701 - 800	3.1	2.0	1.6	4.1	3.4	0.0	2.6	2.4	0.0	2.3	1.2	1.6	0.8	2.9	1.1	7.0	3.6	1.7	2.0	2.7	4.9
601 - 700	26.9	20.4	22.2	30.0	25.8	17.6	20.1	22.0	11.8	22.5	18.6	13.8	22.1	26.0	17.6	29.0	33.3	18.3	20.1	27.2	36.5
501 - 600	44.2	45.9	44.6	42.0	43.8	32.4	42.9	43.9	35.3	50.7	49.1	48.1	43.9	44.0	42.9	38.9	44.9	43.3	47.1	44.8	41.9
401 - 500	20.6	21.2	23.1	14.8	16.4	35.3	28.6	29.3	47.1	22.0	29.9	33.9	31.0	24.8	31.9	22.0	17.2	28.3	27.4	23.0	16.1
301 - 400	1.9	2.7	1.2	1.0	1.4	14.7	5.8	2.4	5.9	2.6	1.2	2.6	2.3	2.4	6.6	3.3	1.0	8.3	3.4	2.3	0.5
201 - 300	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	3.4	7.8	7.3	8.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Score	558.4	545.4	549.5	572.1	564.3	501.2	536.6	548.9	500.4	549.6	540.0	524.9	536.5	551.9	524.6	565.0	570.7	519.2	541.7	554.9	579.4
10. Undergraduate Science GPA*																					
3.8 - 4.0	12.1	8.2	11.3	14.6	10.5	5.9	8.4	7.3	10.3	11.4	9.0	9.0	9.1	9.1	5.5	9.3	12.6	3.3	9.9	13.0	11.5
3.4 - 3.79	25.2	21.2	24.4	26.7	26.2	17.6	24.0	29.3	16.2	24.1	20.4	22.8	23.1	21.4	16.5	21.0	25.7	18.3	25.6	26.1	28.4
3.0 - 3.39	23.4	22.4	21.2	21.3	21.5	23.5	22.7	31.7	19.1	26.7	23.4	31.2	26.9	27.6	37.4	22.0	22.6	20.0	24.1	25.2	20.8
2.6 - 2.99	10.5	8.2	9.9	7.8	7.8	14.7	14.3	14.6	7.4	10.3	13.2	12.7	11.4	12.5	16.5	18.7	12.5	15.0	12.1	11.5	11.5
2.0 - 2.59	4.9	7.8	5.3	2.8	3.5	2.9	6.5	4.9	8.8	4.2	4.8	8.5	7.9	5.8	6.6	6.1	6.7	6.7	6.6	4.9	6.0
Below 2.0	0.8	1.2	1.1	0.4	0.1	2.9	0.6	0.0	2.9	0.6	0.6	1.6	0.8	0.5	1.1	1.4	0.9	3.3	1.0	0.9	1.6
Unknown	23.2	31.0	26.7	26.5	30.3	32.4	23.4	12.2	35.3	22.6	28.7	14.3	20.8	23.1	16.5	21.5	18.9	33.3	20.7	18.4	20.3
Mean GPA	3.3	3.2	3.3	3.4	3.4	3.2	3.2	3.3	3.2	3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.3	3.1	3.3	3.3	3.3
3.8 - 4.0	*16.7*	*11.9*	*16.6*	*19.9*	*16.1*	*8.7*	*11.0*	*8.3*	*15.9*	*14.7*	*12.6*	*10.5*	*11.5*	*11.9*	*6.6*	*11.9*	*15.5*	*8.0*	*12.4*	*15.9*	*14.4*
3.4 - 3.79	*32.9*	*30.7*	*33.3*	*36.3*	*37.6*	*26.1*	*31.4*	*33.3*	*26.0*	*31.2*	*28.6*	*26.5*	*29.2*	*27.5*	*19.7*	*26.8*	*31.7*	*27.5*	*32.2*	*32.0*	*35.6*
3.0 - 3.39	*30.5*	*32.4*	*29.0*	*29.0*	*30.8*	*34.8*	*29.7*	*36.1*	*29.6*	*34.5*	*32.8*	*36.4*	*34.0*	*35.5*	*44.7*	*28.0*	*27.8*	*30.0*	*30.5*	*30.9*	*26.1*
2.6 - 2.99	*13.6*	*11.9*	*13.5*	*10.6*	*11.2*	*21.7*	*16.6*	*16.7*	*11.6*	*13.3*	*18.5*	*16.8*	*14.4*	*16.5*	*19.7*	*25.6*	*15.4*	*28.5*	*15.2*	*14.1*	*14.4*

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	CHANGE: Undecided				Ob/Gyn			Surgery			Primary Care			Other			NO CHANGE: Ob/Gyn	Surgery	Primary Care	Other
		Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care				
10. Undergraduate Science GPA (continued)																					
3.7 - 3.99	*9.3*	*11.4*	*7.2*	*5.8*	*6.2*	*6.8*	*6.2*	*5.4*	*10.8*	*6.6*	*7.7*	*8.6*	*8.8*	*7.6*	*7.6*	*7.7*	*8.3*	*20.0*	*8.8*	*9.2*	*7.5*
Below 3.7	*3.6*	*3.7*	*1.2*	*2.4*	*3.2*	*4.2*	*3.9*	*3.2*	*4.3*	*5.8*	*3.9*	*3.8*	*3.0*	*3.4*	*3.2*	*2.8*	*3.2*	*5.0*	*3.3*	*3.2*	*3.9*
11. Undergraduate Overall GPA*																					
3.8 - 4.0	9.0	4.7	7.5	10.1	6.9	5.3	5.9	2.4	5.9	6.5	6.6	5.3	4.8	7.2	5.5	6.5	9.1	3.3	5.9	8.3	8.3
3.6 - 3.79	29.5	25.8	27.8	31.1	30.0	20.6	28.9	34.1	23.5	31.0	23.4	29.1	23.1	25.0	19.8	27.1	29.1	20.0	27.4	31.2	33.6
3.0 - 3.39	27.3	22.3	32.6	25.1	26.2	20.6	29.2	28.0	17.6	29.1	28.9	33.9	35.3	30.3	36.5	27.6	26.2	21.7	29.2	28.8	26.3
2.6 - 2.99	10.9	12.2	11.2	7.6	6.8	14.7	13.6	12.2	13.2	10.3	13.8	11.6	12.9	13.7	15.4	17.8	13.1	16.7	12.7	12.0	9.9
2.0 - 2.59	8.1	5.9	5.5	2.8	2.8	14.7	4.5	2.4	7.4	3.3	4.2	7.4	5.3	3.8	6.6	5.6	4.9	16.7	6.0	3.9	6.0
Below 2.0	0.2	0.4	0.1	0.2	0.1	2.9	0.0	0.0	2.9	0.3	0.0	0.0	0.3	0.0	1.1	0.5	0.2	1.7	0.4	0.1	0.3
Unknown	20.0	28.7	25.4	23.6	25.5	20.6	16.9	9.8	29.4	19.4	22.2	12.7	18.3	20.0	13.1	15.0	15.3	20.0	18.5	15.9	15.6
Mean GPA	3.3	3.2	3.3	3.4	3.4	3.1	3.3	3.3	3.2	3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.3	3.0	3.2	3.3	3.3
3.8 - 4.0	*10.1*	*6.8*	*10.0*	*12.2*	*9.3*	*7.4*	*7.0*	*3.7*	*8.3*	*9.1*	*9.5*	*6.1*	*6.9*	*9.0*	*6.3*	*7.7*	*10.8*	*4.3*	*7.2*	*9.8*	*9.9*
3.4 - 3.79	*30.9*	*36.1*	*37.3*	*40.7*	*42.3*	*26.9*	*35.9*	*37.2*	*31.2*	*38.4*	*30.0*	*33.3*	*29.3*	*31.2*	*22.8*	*31.9*	*34.4*	*26.0*	*33.6*	*37.1*	*39.8*
3.0 - 3.33	*24.1*	*31.7*	*30.2*	*23.9*	*26.3*	*26.9*	*36.2*	*43.7*	*26.0*	*36.2*	*39.6*	*38.8*	*43.8*	*37.8*	*44.3*	*32.4*	*33.3*	*27.1*	*35.8*	*34.0*	*31.2*
2.6 - 2.99	*12.8*	*16.8*	*16.0*	*9.9*	*11.6*	*19.6*	*16.4*	*7.3*	*16.8*	*11.6*	*17.7*	*18.3*	*15.8*	*17.1*	*17.7*	*20.9*	*16.5*	*20.8*	*15.6*	*14.3*	*11.7*
2.0 - 2.59	*6.1*	*8.2*	*7.3*	*3.1*	*3.3*	*19.6*	*3.6*	*3.7*	*10.4*	*4.1*	*5.4*	*8.5*	*6.5*	*4.8*	*7.6*	*6.8*	*5.8*	*20.8*	*7.4*	*4.7*	*7.1*
Below 2.0	*0.3*	*0.5*	*0.2*	*0.3*	*0.2*	*3.7*	*0.0*	*0.0*	*4.2*	*0.4*	*0.0*	*0.0*	*0.3*	*0.0*	*1.3*	*0.5*	*0.2*	*2.1*	*0.5*	*0.1*	*0.3*
12. Undergraduate College - Control																					
Public	46.8	49.4	45.1	44.4	52.6	47.1	47.4	58.5	54.4	47.2	51.5	50.3	49.2	56.7	39.6	43.9	43.4	41.7	40.6	49.0	46.1
Private	50.3	48.2	51.1	51.7	43.5	52.9	48.1	36.6	42.6	51.4	46.1	47.6	46.2	41.8	57.1	54.7	54.7	58.3	56.7	48.8	51.6
Unknown	2.9	2.4	3.7	4.0	3.9	0.0	4.5	4.9	2.9	1.4	2.4	2.1	4.6	1.4	3.3	1.4	2.0	0.0	2.6	2.2	2.3

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	CHANGE																NO CHANGE			
		Undecided				Ob/Gyn			Surgery			Primary Care			Other			Ob/Gyn	Surgery	Primary Care	Other
		Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care				
13. Undergraduate College - Enrollment																					
Less than 500	0.4	0.0	0.3	0.4	0.4	2.9	0.0	0.0	0.0	0.5	0.0	0.5	0.3	0.5	0.0	0.5	0.5	0.0	0.2	0.6	0.0
500 - 999	3.0	3.5	4.4	2.7	3.2	2.9	3.9	2.4	2.9	3.2	3.0	1.6	2.3	1.9	3.3	1.4	3.1	6.7	2.8	3.1	3.4
1,000 - 2,499	12.3	12.2	11.9	11.7	11.6	2.9	11.7	12.2	10.3	12.0	10.8	13.2	12.9	12.3	15.4	13.6	11.7	23.3	11.5	13.6	12.8
2,500 - 4,999	8.6	11.8	8.3	8.1	6.2	11.8	8.4	7.3	8.6	7.0	7.2	7.4	10.7	9.4	15.4	7.5	6.8	8.3	11.7	5.9	8.9
5,000 - 9,999	19.3	18.0	21.8	18.9	19.3	32.4	22.1	17.1	22.1	20.0	24.0	25.4	17.5	20.7	17.6	21.5	19.0	18.3	19.3	17.3	17.7
10,000 - 19,999	15.8	16.5	13.9	15.2	15.1	14.7	14.3	9.8	13.2	20.0	19.2	16.9	13.2	16.1	7.7	17.8	15.1	10.0	17.1	16.8	16.1
20,000 or more	31.9	30.6	30.2	32.1	33.1	28.5	32.5	41.5	33.8	30.2	28.7	29.1	35.5	34.4	31.9	30.4	33.2	28.3	31.2	31.2	33.1
Unknown	6.5	7.5	9.3	9.8	10.9	5.9	7.1	9.8	8.8	7.1	7.2	5.8	10.2	4.8	8.8	7.5	8.7	5.0	6.2	7.5	8.1
14. Undergraduate College - Selectivity*																					
1. Non-competitive	4.7	2.0	2.7	4.5	5.4	8.8	7.1	14.6	1.5	3.6	0.6	5.8	4.8	5.3	3.3	6.1	5.5	3.3	3.4	5.7	3.9
2. Less competitive	5.5	10.6	4.4	4.9	6.8	11.8	11.0	9.8	10.3	7.1	9.6	10.6	6.6	12.0	9.9	5.1	5.2	21.7	5.8	7.4	4.2
3. Competitive	26.9	25.5	32.3	23.1	27.3	32.4	27.9	29.3	32.4	27.0	39.5	28.6	27.9	36.5	25.3	29.4	21.9	28.3	26.2	29.7	25.5
4. Competitive	8.0	9.0	8.0	7.0	8.0	11.8	7.1	9.8	22.1	9.0	9.0	10.1	8.1	8.2	11.0	6.1	7.8	8.3	9.5	8.2	8.6
5. Very competitive	15.1	17.6	13.9	16.4	15.4	2.9	13.0	14.6	13.2	14.3	9.6	14.3	18.8	13.0	13.2	13.1	14.1	11.7	16.5	14.6	15.6
6. Very competitive	8.8	11.8	7.1	9.8	8.4	14.7	9.5	7.3	4.4	8.5	6.6	6.3	7.9	5.9	9.9	7.0	8.3	3.3	9.5	9.2	11.5
7. Highly competitive	10.4	7.8	10.5	11.2	8.8	2.9	9.7	4.9	8.8	10.0	10.2	7.4	6.9	8.2	13.2	12.6	13.1	8.3	8.7	10.3	12.5
8. Highly competitive	5.1	3.9	5.2	5.2	4.5	5.9	3.2	0.0	0.0	6.2	4.8	6.9	5.6	3.8	3.3	4.7	6.2	6.7	7.0	4.5	4.4
9. Most competitive	9.6	5.9	8.3	11.6	8.1	5.9	7.8	4.9	2.9	11.1	6.6	6.3	6.3	5.0	4.4	14.0	14.1	6.7	8.5	6.9	9.4
Unknown	5.0	5.9	7.6	6.3	7.4	2.9	6.5	4.9	4.4	3.2	3.6	3.7	6.9	2.2	6.6	1.9	3.7	1.7	5.0	3.5	4.4
Mean Selectivity	4.8	4.6	4.8	5.1	4.6	4.1	4.4	3.7	4.1	4.9	4.5	4.4	4.6	4.1	4.6	5.0	5.2	4.2	4.9	4.6	5.0

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	No Response	CHANGE: Undecided: Ob/Gyn	Undecided: Surgery	Undecided: Primary Care	Undecided: Other	Ob/Gyn: Surgery	Ob/Gyn: Primary Care	Ob/Gyn: Other	Surgery: Ob/Gyn	Surgery: Primary Care	Surgery: Other	Primary Care: Ob/Gyn	Primary Care: Surgery	Primary Care: Other	Other: Ob/Gyn	Other: Surgery	Other: Primary Care	NO CHANGE: Ob/Gyn	NO CHANGE: Surgery	NO CHANGE: Primary Care	NO CHANGE: Other
15. Percent of Undergraduate Course Hours in Science*																						
81% or more	1.1	0.4	0.9	0.9	0.8	0.0	0.0	2.4	2.9	1.4	1.8	0.5	1.5	0.2	2.2	2.3	1.8	0.0	0.8	1.0	1.3
71% to 80%	7.0	4.7	5.1	7.1	7.2	5.9	6.5	7.3	8.8	8.6	9.0	4.8	7.4	6.0	6.6	7.9	7.5	3.3	7.8	6.8	7.0
61% to 70%	21.4	17.6	26.0	21.2	18.5	17.6	22.7	34.1	26.5	23.1	20.4	22.8	23.6	19.0	15.4	17.3	18.8	13.3	25.6	22.3	19.3
51% to 60%	24.1	25.5	22.6	23.3	21.2	29.4	26.6	17.1	13.2	24.6	20.4	31.7	25.1	24.0	33.0	22.0	23.3	31.7	27.0	25.9	19.8
41% to 50%	12.3	12.5	10.9	11.5	10.3	14.7	13.6	12.2	7.4	12.0	10.8	14.8	12.4	14.2	14.3	13.1	14.7	13.3	9.9	13.0	14.3
31% to 40%	6.2	5.5	3.9	5.9	6.4	0.0	3.2	7.3	4.4	5.0	6.6	5.8	5.3	7.0	9.9	10.3	8.1	5.0	4.6	6.5	8.9
21% to 30%	3.3	2.4	3.2	2.6	3.9	0.0	3.2	4.9	1.5	2.3	1.8	3.7	2.8	4.1	1.1	3.3	5.5	0.0	2.4	3.6	5.2
20% or less	1.4	0.4	0.7	0.9	1.5	0.0	0.0	2.4	0.0	0.3	0.6	1.6	0.8	2.2	1.1	2.3	1.4	0.0	1.2	2.4	3.9
Unknown	23.3	31.0	26.7	26.5	30.3	32.4	24.0	12.2	35.3	22.8	28.7	14.3	21.1	23.3	16.5	21.5	19.0	33.3	20.7	18.4	20.3
Mean Percent	55.2	55.4	56.4	55.9	54.7	57.7	56.1	55.8	59.9	57.2	56.9	54.0	56.5	53.1	54.3	54.2	53.7	55.4	56.9	54.6	52.2
81% or more	*1.4*	*0.6*	*1.1*	*1.3*	*1.2*	*0.0*	*0.0*	*3.0*	*4.1*	*2.0*	*2.5*	*0.6*	*1.9*	*0.3*	*2.6*	*3.0*	*2.2*	*0.0*	*1.0*	*1.2*	*1.6*
71% to 80%	*9.1*	*6.8*	*6.9*	*9.7*	*10.5*	*8.7*	*8.5*	*8.3*	*12.6*	*11.3*	*12.6*	*5.6*	*9.5*	*7.8*	*7.9*	*10.1*	*9.3*	*5.0*	*9.9*	*8.4*	*8.8*
61% to 70%	*27.9*	*25.6*	*35.5*	*28.8*	*26.6*	*26.1*	*29.9*	*38.9*	*40.0*	*28.9*	*25.6*	*26.6*	*29.9*	*24.8*	*18.4*	*22.0*	*23.2*	*20.0*	*32.2*	*27.3*	*24.2*
51% to 60%	*31.3*	*36.9*	*30.8*	*31.9*	*30.4*	*43.5*	*36.0*	*19.4*	*20.5*	*31.9*	*26.6*	*37.0*	*31.8*	*31.3*	*39.5*	*28.0*	*29.6*	*47.5*	*34.0*	*31.7*	*24.8*
41% to 50%	*16.2*	*16.2*	*14.9*	*15.6*	*14.7*	*21.7*	*17.9*	*13.9*	*11.4*	*15.5*	*15.1*	*17.3*	*15.8*	*16.5*	*17.1*	*16.7*	*18.1*	*20.0*	*12.4*	*16.0*	*18.0*
31% to 40%	*8.1*	*9.0*	*5.3*	*8.0*	*9.1*	*0.0*	*4.5*	*8.3*	*6.8*	*6.5*	*9.2*	*6.8*	*6.8*	*9.1*	*11.8*	*13.1*	*10.0*	*7.5*	*5.6*	*8.0*	*11.1*
21% to 30%	*4.3*	*5.4*	*4.4*	*5.5*	*5.6*	*0.0*	*6.5*	*5.6*	*2.3*	*2.9*	*3.5*	*6.3*	*5.5*	*5.3*	*1.5*	*4.2*	*6.7*	*0.0*	*3.0*	*6.5*	*6.5*
20% or less	*1.8*	*0.6*	*0.8*	*1.5*	*2.1*	*0.0*	*0.0*	*3.6*	*0.0*	*0.4*	*0.8*	*1.8*	*1.0*	*2.8*	*1.5*	*3.0*	*1.7*	*0.0*	*1.5*	*3.0*	*4.9*

* Percentages in italics exclude non-respondents.

Table 5 (continued)

Characteristics	Total	CHANGE: Undecided → Ob/Gyn	CHANGE: Undecided → Surgery	CHANGE: Undecided → Primary Care	CHANGE: Undecided → Other	CHANGE: Ob/Gyn → Surgery	CHANGE: Ob/Gyn → Primary Care	CHANGE: Ob/Gyn → Other	CHANGE: Surgery → Ob/Gyn	CHANGE: Surgery → Primary Care	CHANGE: Surgery → Other	CHANGE: Primary Care → Ob/Gyn	CHANGE: Primary Care → Surgery	CHANGE: Primary Care → Other	CHANGE: Other → Ob/Gyn	CHANGE: Other → Surgery	CHANGE: Other → Primary Care	NO CHANGE: Ob/Gyn	NO CHANGE: Surgery	NO CHANGE: Primary Care	NO CHANGE: Other
16. Undergraduate Major																					
Biological sciences	44.3	49.0	42.7	41.0	35.4	52.9	54.5	56.1	51.5	50.2	51.5	46.0	53.8	45.0	57.1	38.8	42.4	60.0	51.3	46.8	35.9
Physical sciences and mathematics	21.0	15.7	22.3	20.9	20.7	20.6	19.5	17.1	25.5	21.2	22.2	20.6	21.3	14.2	17.6	27.6	23.4	15.0	17.5	21.4	24.0
Humanities, languages and the arts	4.0	3.1	3.6	4.0	4.7	2.9	3.9	2.4	0.0	3.8	4.2	3.2	2.8	5.5	0.0	5.1	4.7	0.0	1.6	4.0	6.8
Social sciences	6.9	4.7	6.8	6.0	7.2	8.8	3.9	4.9	11.8	8.8	6.0	13.8	5.6	11.1	7.7	5.1	4.9	6.7	11.1	6.9	6.0
Premedical	9.7	6.7	6.5	8.4	9.5	2.9	5.2	9.8	2.9	7.6	6.6	9.0	8.1	8.9	9.9	14.5	14.8	6.7	8.2	11.0	16.4
Other	8.7	14.9	12.4	13.2	14.9	8.8	5.8	2.4	4.4	4.9	6.0	4.8	3.6	7.7	5.5	4.7	5.8	8.3	5.4	5.1	6.3
Unknown	5.4	5.9	5.6	6.5	7.7	2.9	7.1	7.3	2.9	3.5	3.6	2.6	5.1	7.7	2.2	4.2	3.9	3.3	4.8	4.8	4.7
17. Parental Income*																					
Less than $5,000	5.6	3.9	2.4	2.6	3.6	26.5	8.4	17.1	11.8	6.4	4.2	6.9	6.1	7.9	6.8	8.4	6.2	26.7	5.2	7.9	8.9
$5,000 to $9,999	12.8	9.4	8.9	7.6	9.7	17.6	24.0	12.2	14.7	14.7	13.2	20.6	17.0	18.0	22.0	14.5	15.6	13.3	12.5	16.3	15.9
$10,000 to $14,999	19.5	14.5	15.8	14.9	13.8	26.5	20.8	17.1	30.9	21.2	23.4	23.3	21.1	25.0	22.0	22.4	24.0	11.7	19.7	23.2	24.5
$15,000 to $19,000	13.2	9.8	9.6	12.1	9.7	7.9	16.2	17.1	13.2	15.9	15.6	12.7	16.0	13.5	17.6	17.8	15.6	8.3	13.1	14.6	10.9
$20,000 or more	27.1	18.4	26.2	22.8	23.0	23.5	23.4	24.4	25.0	34.0	36.5	29.1	29.4	24.0	24.2	25.7	28.8	31.7	41.9	28.6	31.3
Unknown	21.9	43.9	37.1	40.0	40.1	2.9	7.1	12.2	4.4	7.7	7.2	7.4	10.4	11.5	5.5	11.2	9.8	8.3	7.6	9.4	8.6
Median Income	15,463	15,100	17,256	17,005	16,423	10,833	13,309	14,285	13,452	16,190	16,827	14,033	15,180	13,553	13,749	14,791	14,868	12,500	18,345	14,550	14,281
Less than $5,000	*7.1*	*7.0*	*3.8*	*4.4*	*6.1*	*27.3*	*9.1*	*19.4*	*12.5*	*6.9*	*4.5*	*7.4*	*6.6*	*8.0*	*9.5*	*9.2*	*6.9*	*22.1*	*6.7*	*8.7*	*9.7*
$5,000 to $9,999	*16.4*	*16.8*	*14.2*	*12.7*	*16.3*	*18.2*	*26.9*	*13.9*	*16.4*	*16.0*	*14.9*	*23.5*	*19.0*	*20.4*	*23.5*	*16.5*	*17.3*	*14.5*	*23.5*	*19.0*	*17.4*
$10,000 to $14,999	*25.0*	*25.9*	*25.1*	*24.9*	*23.0*	*27.3*	*23.4*	*19.4*	*32.5*	*23.0*	*25.2*	*25.1*	*25.5*	*28.5*	*23.5*	*23.5*	*26.6*	*22.7*	*21.4*	*23.0*	*26.8*
$15,000 to $19,999	*16.9*	*17.6*	*15.5*	*20.2*	*16.5*	*9.0*	*17.6*	*19.4*	*25.0*	*17.2*	*16.9*	*15.7*	*17.8*	*15.2*	*18.6*	*20.0*	*17.5*	*9.1*	*14.2*	*16.2*	*12.0*
$20,000 or more	*34.6*	*32.8*	*41.6*	*37.8*	*38.4*	*24.2*	*23.2*	*27.8*	*28.2*	*36.8*	*38.4*	*33.4*	*33.9*	*27.2*	*35.0*	*28.9*	*31.8*	*36.5*	*43.3*	*32.5*	*34.2*

* Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970. Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	%	CHANGE																NO CHANGE			
			Undecided				Ob/Gyn			Surgery			Primary Care			Other			Ob/Gyn	Surgery	Primary Care	Other
			Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care				
18. Father's Education*																						
Eighth grade or less	5.0	3.1	2.1	2.7	3.2	14.7	6.5	4.9	8.8	5.9	2.4	8.5	6.6	7.0	11.0	3.7	6.6	13.3	4.2	7.2	6.8
Some high school	4.8	2.7	2.7	3.4	2.7	11.8	13.6	12.2	7.4	5.5	6.0	5.8	6.6	5.5	2.2	5.6	6.0	13.3	5.0	5.9	4.4
Completed high school	12.7	9.8	12.8	8.5	10.7	17.6	14.9	9.8	17.6	15.0	14.4	19.6	14.5	16.1	15.4	10.7	13.1	13.3	13.7	15.9	17.2
Technical training	2.9	0.8	1.2	1.9	1.5	2.9	5.2	4.9	2.9	3.0	4.2	2.6	4.3	3.8	6.6	3.7	4.3	5.0	2.6	3.7	3.1
Some college	11.3	11.8	9.5	10.1	8.4	11.8	11.7	7.3	13.2	14.1	11.4	11.1	13.5	13.7	8.8	17.3	10.5	10.0	14.1	12.1	10.4
Completed college	14.6	8.6	10.7	12.5	11.6	14.7	13.6	22.0	13.2	16.8	12.6	13.2	12.9	17.8	13.2	16.4	17.5	8.3	13.9	18.1	12.8
Graduate or professional school	28.1	19.6	24.4	23.3	24.1	11.8	25.3	34.1	30.9	30.7	37.7	36.0	31.5	28.6	30.8	31.8	32.4	35.0	36.4	29.8	35.2
Other	0.8	0.4	0.5	0.6	0.7	0.0	0.8	0.0	0.0	0.5	1.2	0.5	1.0	1.2	1.1	1.4	0.8	0.0	1.8	0.9	1.3
Unknown	19.8	43.1	36.0	37.0	37.2	14.7	8.4	4.9	5.9	6.5	10.2	2.6	9.1	6.3	11.0	9.3	8.7	1.7	8.2	6.5	8.9
Eighth grade or less	*6.3*	*5.5*	*3.3*	*4.3*	*5.3*	*17.2*	*7.2*	*5.1*	*9.4*	*6.3*	*2.7*	*8.7*	*7.3*	*7.4*	*12.5*	*4.1*	*7.2*	*15.6*	*4.6*	*7.7*	*7.4*
Some high school	*6.0*	*4.8*	*4.2*	*5.4*	*4.3*	*13.8*	*14.9*	*12.8*	*7.8*	*6.8*	*6.7*	*6.0*	*7.3*	*5.9*	*2.5*	*6.2*	*6.5*	*15.6*	*5.5*	*6.3*	*4.9*
Completed high school	*15.9*	*17.2*	*20.0*	*13.6*	*17.0*	*20.7*	*16.5*	*10.3*	*16.8*	*16.1*	*16.0*	*20.1*	*15.9*	*17.2*	*17.5*	*11.9*	*14.4*	*15.6*	*14.9*	*17.2*	*16.8*
Technical training	*3.8*	*1.4*	*1.9*	*3.1*	*2.4*	*3.4*	*6.7*	*5.1*	*3.1*	*3.2*	*4.7*	*2.7*	*4.7*	*4.1*	*7.4*	*4.1*	*4.8*	*5.1*	*2.9*	*3.9*	*3.4*
Some college	*14.0*	*20.7*	*14.9*	*16.0*	*13.5*	*13.8*	*13.6*	*7.7*	*14.1*	*15.1*	*13.7*	*11.4*	*14.8*	*14.6*	*9.9*	*19.1*	*11.8*	*10.2*	*15.4*	*12.9*	*11.4*
Completed college	*18.2*	*15.2*	*19.7*	*19.9*	*18.6*	*17.2*	*14.9*	*23.1*	*14.1*	*20.1*	*16.0*	*15.6*	*14.2*	*19.0*	*14.8*	*18.9*	*19.1*	*8.5*	*15.1*	*19.4*	*14.0*
Graduate or professional school	*35.0*	*34.5*	*30.3*	*35.9*	*36.2*	*13.8*	*27.7*	*36.9*	*32.8*	*33.6*	*42.0*	*37.0*	*34.6*	*30.6*	*34.6*	*36.1*	*36.4*	*36.6*	*39.7*	*31.8*	*39.6*
Other	*1.0*	*0.7*	*0.8*	*1.0*	*1.1*	*0.0*	*0.7*	*0.0*	*0.0*	*0.8*	*1.3*	*0.8*	*1.1*	*1.2*	*1.2*	*1.5*	*0.8*	*0.0*	*2.0*	*1.0*	*1.4*

* Percentages in italics exclude non-respondents.

Characteristics	Total	From	CHANGE																NO CHANGE			
		To	Undecided				OB/Gyn			Surgery			Primary Care			Other			OB/Gyn	Surgery	Primary Care	Other
			OB/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	OB/Gyn	Primary Care	Other	OB/Gyn	Surgery	Other	OB/Gyn	Surgery	Primary Care				
19. Mother's Education*																						
Eighth grade or less	3.7		1.6	1.6	2.2	2.4	14.7	5.2	7.3	5.9	4.9	3.6	5.3	3.3	3.4	6.6	4.2	5.3	16.7	3.0	5.0	5.5
Some high school	4.4		2.4	2.7	2.5	2.3	11.8	9.7	2.4	8.8	5.3	4.2	7.4	6.8	6.3	5.5	4.7	5.7	10.0	6.2	5.5	4.2
Completed high school	22.2		18.4	18.6	17.2	17.7	23.5	23.4	29.3	27.9	25.8	22.8	24.9	26.6	28.6	15.4	19.2	23.8	20.0	22.3	27.8	24.0
Technical training	5.5		3.1	4.4	3.7	3.6	5.9	6.5	0.0	7.4	7.1	6.6	7.9	5.8	7.0	9.9	6.1	5.5	11.7	6.8	7.5	5.5
Some college	15.4		12.5	14.2	12.4	14.2	11.8	17.5	24.4	20.6	16.7	19.8	20.1	18.5	15.6	23.1	17.8	15.4	11.7	17.5	17.1	19.0
Completed college	17.6		10.2	13.4	15.8	14.5	14.7	15.6	17.1	16.2	20.9	22.8	23.3	18.5	21.4	16.5	17.8	20.4	10.0	21.9	18.7	18.5
Graduate or professional school	10.6		7.1	8.3	8.4	7.8	5.9	13.0	7.8	7.4	12.6	9.6	7.9	10.7	10.6	11.0	19.2	14.8	18.3	12.9	11.2	12.5
Other	0.8		1.6	0.9	0.8	0.4	0.0	1.3	0.0	0.0	0.3	0.6	0.5	0.5	1.0	1.1	1.9	0.7	0.0	0.8	0.7	2.1
Unknown	19.8		43.1	36.0	37.0	37.0	11.8	7.8	9.8	5.9	6.4	10.2	2.6	9.4	6.3	11.0	9.3	8.4	1.7	8.5	6.4	6.9
Eighth grade or less	*4.6*		*2.8*	*3.5*	*3.1*	*3.0*	*16.7*	*6.6*	*8.1*	*6.8*	*5.2*	*4.0*	*3.4*	*3.6*	*3.6*	*7.4*	*4.6*	*5.8*	*16.9*	*3.3*	*5.4*	*6.0*
Some high school	*5.5*		*4.1*	*4.2*	*4.4*	*3.8*	*13.3*	*10.6*	*3.7*	*9.4*	*5.7*	*4.7*	*7.8*	*7.3*	*6.7*	*6.3*	*5.3*	*6.2*	*10.2*	*6.8*	*5.9*	*4.6*
Completed high school	*27.6*		*32.4*	*29.0*	*27.3*	*28.1*	*26.7*	*26.4*	*32.4*	*29.7*	*27.6*	*25.3*	*26.1*	*27.4*	*30.1*	*17.3*	*21.1*	*26.0*	*20.3*	*24.4*	*29.7*	*26.3*
Technical training	*6.8*		*5.5*	*6.9*	*6.8*	*6.8*	*6.7*	*7.0*	*0.0*	*7.9*	*7.6*	*7.3*	*8.3*	*6.4*	*7.4*	*11.1*	*6.7*	*6.0*	*11.9*	*7.5*	*8.1*	*6.0*
Some college	*19.2*		*22.1*	*23.1*	*19.6*	*22.6*	*13.3*	*18.0*	*17.0*	*21.9*	*17.8*	*21.0*	*20.7*	*20.4*	*16.7*	*21.9*	*13.6*	*16.8*	*11.9*	*19.1*	*18.2*	*20.9*
Completed college	*21.0*		*17.9*	*20.9*	*23.1*	*23.0*	*16.7*	*18.0*	*19.3*	*17.2*	*23.4*	*23.3*	*23.9*	*20.4*	*22.3*	*18.5*	*19.8*	*23.3*	*20.2*	*24.0*	*20.0*	*20.3*
Graduate or professional school	*13.2*		*12.4*	*12.9*	*13.4*	*12.4*	*6.7*	*14.1*	*10.6*	*7.9*	*13.5*	*10.7*	*8.3*	*11.9*	*11.3*	*12.3*	*21.1*	*16.3*	*16.6*	*14.1*	*12.0*	*13.7*
Other	*1.0*		*2.8*	*1.5*	*1.3*	*0.8*	*0.0*	*1.4*	*0.0*	*0.0*	*0.3*	*0.7*	*0.6*	*0.6*	*1.0*	*1.2*	*2.1*	*0.7*	*0.0*	*0.9*	*0.8*	*2.3*

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	%	CHANGE: Undecided				Ob/Gyn			Surgery			Primary Care			Other			NO CHANGE			
			Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
20. Father's Occupation*																						
Physician	12.4	10.2	13.6	9.6	10.1	14.7	9.1	9.8	16.2	15.5	25.1	14.8	15.2	13.7	14.3	17.8	11.0	16.7	21.9	11.7	15.9
Other health professional	3.7	3.5	3.2	3.2	3.8	0.0	3.9	0.0	5.9	4.7	2.4	3.7	3.8	4.1	3.3	2.8	4.0	3.3	3.8	4.0	4.9
Other professional	20.0	11.0	13.1	15.7	17.7	2.9	27.4	24.4	13.2	21.2	20.4	26.5	22.1	20.7	20.9	22.9	26.7	20.0	21.3	24.5	21.4
Owner-manager	16.8	11.4	13.5	13.9	13.1	8.8	18.2	12.2	19.1	20.6	19.8	21.7	17.5	18.8	19.8	18.2	19.3	15.0	17.3	19.4	18.5
Clerical-sales	7.1	7.3	5.3	5.7	5.4	14.7	6.5	9.8	10.3	8.8	6.0	5.8	6.6	7.7	9.9	8.9	8.7	5.0	6.6	8.7	7.0
Craftsman	5.0	5.1	6.5	5.1	5.5	14.7	18.2	9.8	7.4	9.4	7.8	12.2	10.2	9.4	7.7	7.9	9.0	10.0	7.6	10.1	12.0
Unskilled	3.3	1.6	2.0	2.1	1.4	11.8	5.8	7.3	8.8	3.5	4.8	3.7	5.6	4.8	6.6	4.2	4.4	11.7	3.4	3.8	3.4
Farmer-manager	2.3	1.2	1.9	1.5	1.5	11.8	3.2	7.3	2.9	2.9	2.4	2.1	3.3	3.4	4.4	2.3	2.2	3.3	1.4	3.4	1.8
Homemaker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Other	9.4	7.8	7.7	7.8	6.1	8.8	7.8	14.6	13.2	9.3	9.0	6.3	10.9	12.5	11.0	10.3	10.3	11.7	11.9	11.3	9.9
Unknown	17.0	41.2	33.1	35.4	35.4	11.8	5.8	4.9	2.9	4.1	2.4	2.6	4.8	5.0	2.2	4.7	4.3	3.3	4.6	3.0	5.2
Physician	*13.0*	*17.3*	*20.4*	*14.9*	*16.7*	*16.7*	*9.7*	*[illegible]*	*16.7*	*16.1*	*25.6*	*15.2*	*16.0*	*14.4*	*14.6*	*18.6*	*11.5*	*17.2*	*23.0*	*12.1*	*16.8*
Other health professional	*4.4*	*6.0*	*4.8*	*4.9*	*5.0*	*0.0*	*4.1*	*0.0*	*6.1*	*4.9*	*2.5*	*3.8*	*4.0*	*4.3*	*3.4*	*2.9*	*4.2*	*3.4*	*4.0*	*4.1*	*5.2*
Other professional	*24.1*	*18.7*	*19.6*	*24.3*	*27.4*	*3.3*	*25.8*	*25.6*	*13.9*	*22.2*	*20.9*	*27.8*	*23.8*	*21.6*	*21.3*	*24.0*	*27.9*	*20.7*	*22.4*	*25.2*	*22.5*
Owner-manager	*20.2*	*19.3*	*20.2*	*21.5*	*20.3*	*10.0*	*19.3*	*12.8*	*19.7*	*21.5*	*20.2*	*22.5*	*18.4*	*19.7*	*20.3*	*19.1*	*20.2*	*16.5*	*18.1*	*20.0*	*19.5*
Clerical-sales	*8.6*	*12.0*	*8.0*	*8.6*	*8.4*	*16.7*	*6.9*	*10.3*	*10.6*	*9.2*	*6.1*	*6.0*	*6.9*	*8.1*	*10.1*	*9.3*	*9.1*	*5.2*	*7.0*	*9.0*	*7.4*
Craftsman	*9.6*	*8.7*	*9.8*	*7.9*	*8.6*	*16.7*	*19.3*	*10.3*	*7.6*	*9.8*	*8.0*	*12.5*	*10.7*	*9.9*	*7.[illegible]*	*8.3*	*9.4*	*10.3*	*8.0*	*10.4*	*12.6*
Unskilled	*4.0*	*2.7*	*3.0*	*3.3*	*2.1*	*15.3*	*6.8*	*7.7*	*9.1*	*3.6*	*4.9*	*3.8*	*5.9*	*5.1*	*6.7*	*[illegible]*	*4.6*	*12.1*	*3.6*	*3.9*	*3.6*
Farmer-manager	*2.8*	*2.0*	*2.8*	*2.4*	*2.3*	*15.3*	*3.4*	*7.7*	*3.0*	*3.0*	*2.5*	*2.2*	*3.5*	*3.5*	*4.5*	*2.[illegible]*	*2.3*	*3.4*	*1.5*	*3.5*	*1.9*
Homemaker	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	*0.0*	*0.0*	*0.0*
Other	*11.3*	*13.3*	*11.6*	*13.1*	*9.4*	*10.0*	*8.5*	*16.4*	*13.6*	*9.7*	*9.2*	*6.5*	*11.5*	*15.2*	*11.2*	*10.8*	*10.8*	*12.1*	*12.4*	*11.7*	*10.4*

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	From	CHANGE																NO CHANGE			
			Undecided				Ob/Gyn			Surgery			Primary Care			Other						
			Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
21. Mother's Occupation*																						
Physician	0.6	0.4	0.4	0.6	0.4	0.0	1.3	0.0	0.0	0.8	0.0	0.5	0.8	0.5	1.1	1.4	0.9	0.0	1.8	0.4	0.3
Other health professional	4.8	4.7	3.6	3.2	2.7	2.9	5.8	2.4	4.4	6.2	6.0	6.9	5.8	5.0	7.7	4.7	6.0	10.0	5.8	6.2	4.2
Other professional	9.0	4.7	7.1	6.4	5.6	0.0	15.6	9.8	5.9	10.2	6.6	10.6	10.2	11.3	12.1	17.3	12.6	15.0	7.2	9.9	13.0
Owner-manager	2.0	1.2	1.9	1.2	2.3	0.0	2.6	2.4	0.0	3.2	2.4	2.6	2.0	1.9	4.4	0.9	2.0	3.3	1.4	2.6	2.1
Clerical-sales	10.0	8.2	5.1	8.3	7.8	14.7	9.1	7.3	8.6	9.9	6.0	10.6	10.2	11.8	9.9	12.1	13.1	15.0	10.3	12.2	14.1
Craftsman	1.3	1.6	2.1	0.7	1.2	0.0	3.2	0.0	0.0	2.0	1.8	2.6	0.5	0.7	0.0	0.5	2.5	0.0	0.6	1.3	1.6
Unskilled	1.6	0.8	1.3	0.9	1.6	5.9	3.9	2.4	1.5	2.0	3.0	3.7	1.5	1.7	2.2	0.5	2.0	5.0	1.0	2.0	1.8
Farmer-manager	0.1	0.0	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.3
Homemaker	47.9	31.0	40.9	38.7	38.2	55.9	50.0	63.4	70.6	55.5	61.1	55.0	57.6	57.7	57.1	48.6	48.8	43.3	61.4	55.2	51.0
Other	6.0	7.1	4.7	4.9	3.6	11.8	3.9	4.9	5.9	7.0	7.2	4.8	5.6	5.5	3.3	7.5	8.7	6.7	6.4	6.8	6.5
Unknown	16.7	40.4	32.7	35.0	35.3	6.8	4.5	7.3	2.9	3.0	6.0	7.1	5.8	3.8	2.2	6.5	3.3	1.7	4.0	3.1	4.4
Physician	*0.7*	*0.7*	*0.6*	*0.8*	*0.6*	*0.0*	*1.4*	*0.0*	*0.0*	*0.8*	*0.0*	*0.5*	*0.8*	*0.5*	*1.1*	*1.4*	*0.9*	*0.0*	*1.9*	*0.4*	*0.3*
Other health professional	*5.8*	*7.9*	*5.4*	*3.9*	*4.3*	*3.2*	*6.1*	*3.6*	*4.5*	*6....	*6.4*	*7.0*	*6.2*	*5.3*	*7.9*	*5.0*	*6.3*	*10.2*	*6.1*	*6.4*	*4....
Other professional	*10.8*	*7.9*	*10.6*	*9.6*	*10.2*	*0.0*	*16.3*	*10.3*	*6.5*	*10.6*	*7.0*	*10.8*	*10.8*	*11.9*	*12.4*	*18.4*	*13.0*	*15.3*	*7.6*	*10.4*	*13.9*
Owner-manager	*2.4*	*2.0*	*2.8*	*1.9*	*2.4*	*0.0*	*2.7*	*2.6*	*0.0*	*3.4*	*2.6*	*2.7*	*2.0*	*2.0*	*4.4*	*1.0*	*2.0*	*3.4*	*1.5*	*2.7*	*2.2*
Clerical-sales	*12.0*	*13.9*	*7.6*	*12.7*	*12.1*	*14.7*	*9.6*	*7.8*	*9.1*	*10.3*	*6.4*	*10.6*	*10.8*	*12.2*	*10.7*	*13.0*	*13.6*	*15.3*	*10.7*	*12.6*	*14.7*
Craftsman	*1.6*	*2.8*	*3.2*	*1.1*	*1.3*	*0.0*	*3.4*	*0.0*	*0.0*	*2.0*	*1.8*	*2.7*	*0.5*	*0.8*	*0.0*	*0.5*	*2.6*	*0.0*	*0.6*	*1.3*	*1.6*
Unskilled	*1.9*	*1.3*	*2.0*	*1.3*	*2.6*	*6.5*	*4.1*	*2.9*	*1.5*	*2.0*	*3.0*	*3.8*	*1.5*	*1.8*	*2.2*	*0.5*	*2.0*	*5.1*	*1.0*	*2.1*	*1.9*
Farmer-manager	*0.2*	*0.0*	*0.4*	*0.1*	*0.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.3*	*0.0*	*0.5*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.0*	*0.0*	*0.2*	*0.3*
Homemaker	*57.5*	*69.0*	*60.7*	*59.5*	*58.1*	*61.3*	*63.4*	*68.4*	*78.7*	*67.3*	*66.0*	*66.8*	*61.2*	*60.0*	*58.4*	*52.0*	*50.5*	*48.1*	*63.9*	*58.9*	*53.4*
Other	*7.2*	*11.8*	*8.9*	*7.6*	*8.8*	*12.9*	*6.1*	*6.3*	*6.1*	*7.3*	*7.6*	*6.0*	*5.8*	*6.8*	*5.6*	*8.0*	*9.0*	*8.8*	*6.7*	*7.1*	*6.8*

* Percentages in italics exclude non-respondents.

Table 6 (continued)

Characteristics	Total	To Fr	CHANGE: Undecided: Ob/Gyn	Undecided: Surgery	Undecided: Primary Care	Undecided: Other	Ob/Gyn: Surgery	Ob/Gyn: Primary Care	Ob/Gyn: Other	Surgery: Ob/Gyn	Surgery: Primary Care	Surgery: Other	Primary Care: Ob/Gyn	Primary Care: Surgery	Primary Care: Other	Other: Ob/Gyn	Other: Surgery	Other: Primary Care	NO CHANGE: Ob/Gyn	NO CHANGE: Surgery	NO CHANGE: Primary Care	NO CHANGE: Other
22. Specialty Preference at Application																						
Basic medical science	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	19.2	22.1	0.0	0.0	0.0	16.4
Family practice	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	29.7	28.8	0.0	0.0	0.0	0.0	0.0	29.1	0.0
Internal medicine	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	26.4	21.2	0.0	0.0	0.0	0.0	0.0	24.8	0.0
Obstetrics/ Gynecology	2.5	0.0	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
Pediatrics	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.8	28.4	27.2	0.0	0.0	0.0	0.0	0.0	28.0	0.0
Psychiatry	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	26.6	22.2	0.0	0.0	0.0	39.8
Public health	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.7	17.8	26.7	0.0	0.0	0.0	12.0
Surgery and specialties	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Other	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.3	36.4	29.0	0.0	0.0	0.0	31.8
Plan to specialize	9.7	23.1	27.5	22.2	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Do not plan to specialize	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	15.5	22.8	0.0	0.0	0.0	0.0	0.0	18.1	0.0
Undecided	17.0	34.1	38.6	42.2	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No response	14.9	42.7	33.9	35.5	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. Medical School Control																						
Private (48)*	45.7	46.3	48.6	48.3	40.9	44.1	44.8	26.8	35.3	49.5	33.5	40.2	43.4	34.4	53.8	53.3	51.0	55.0	51.5	41.7	40.4
Public (66)	54.3	53.7	51.4	51.7	59.1	55.9	55.2	73.2	64.7	50.5	66.5	59.8	56.6	65.6	46.2	46.7	49.0	45.0	48.5	58.3	59.6

* Number of schools in category.

Table 6 (continued)

Characteristics	Total	F-ratio	CHANGE: Undecided				Ob/Gyn			Surgery			Primary Care			Other			NO CHANGE			
			Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
24. Research Orientation																						
2 to 3 SD* below (7)*	1.3	2.0	1.5	0.8	0.7	2.9	0.6	4.9	1.5	0.3	1.2	2.6	1.8	2.9	1.1	1.9	0.9	10.0	1.6	1.3	1.6
1 to 2 SD below (10)	6.7	11.4	7.5	4.8	5.9	11.8	5.8	12.2	17.6	6.4	11.4	13.2	8.6	7.9	2.2	7.5	5.5	10.0	6.8	7.7	7.0
0 to 1 SD below (31)	23.1	28.2	20.4	22.4	25.9	23.5	24.0	19.5	17.6	23.7	30.5	30.2	23.9	28.6	23.1	17.8	20.1	16.7	23.3	23.5	20.8
0 to 1 SD above (55)	56.7	47.1	60.6	57.4	57.4	55.9	59.7	56.1	52.9	56.9	51.5	47.6	57.4	54.8	63.7	58.9	56.0	53.3	55.7	56.6	57.6
1 to 2 SD above (10)	11.0	11.0	8.8	12.7	9.5	5.9	9.7	7.3	10.3	11.4	5.4	5.8	7.6	5.8	9.9	13.6	14.9	10.0	11.1	10.0	12.0
2 to 3 SD above (1)	1.3	0.4	1.2	1.9	0.5	0.0	0.0	0.0	0.0	1.4	0.0	0.5	0.8	0.0	0.0	0.5	2.6	0.0	1.4	0.9	1.0
Mean	.23	.05	.22	.33	.22	.02	.23	-.03	-.02	.27	.00	-.06	.13	.02	.26	.26	.37	-.08	.21	.18	.23
25. Practice Orientation																					
2 to 3 SD* below (4)*	1.9	3.1	2.4	1.5	0.7	5.8	1.9	2.4	1.5	0.6	2.4	1.1	1.8	1.9	0.0	4.2	2.9	3.3	1.4	1.9	2.9
1 to 2 SD below (11)	10.4	7.1	9.2	12.0	7.0	5.9	12.3	4.9	11.8	11.5	6.6	7.4	9.6	5.5	8.8	8.9	13.7	8.3	8.9	10.0	10.2
0 to 1 SD below (35)	28.3	32.2	30.6	27.8	30.7	23.5	26.0	13.5	30.9	29.7	29.3	27.0	27.9	29.8	30.8	36.0	27.2	36.7	30.2	25.6	30.2
0 to 1 SD above (54)	50.3	48.2	50.6	49.5	49.2	55.9	53.2	53.5	52.9	49.8	46.7	51.3	50.3	52.6	51.6	45.3	50.9	43.3	51.5	51.9	48.7
1 to 2 SD above (9)	8.6	9.4	6.9	8.5	11.2	8.8	6.5	14.5	2.9	8.0	14.4	13.2	10.2	10.1	8.8	5.1	4.5	6.7	7.6	10.0	8.1
2 to 3 SD above (1)	0.6	0.0	0.3	0.7	1.2	0.0	0.0	0.0	0.0	0.3	0.6	0.0	0.3	0.0	0.0	0.5	0.9	1.7	0.4	0.7	0.0
Mean	.07	.02	.07	.03	.20	.06	.00	.36	.07	.07	.19	.24	.12	.19	.08	-.09	-.06	.06	.10	.14	.01
26. Emphasis on Graduate Medical Education																					
1 to 2 SD* below (8)*	4.6	10.2	4.7	3.5	5.5	2.9	3.2	7.3	11.8	4.6	7.2	9.5	5.3	4.6	5.5	4.7	3.3	11.7	5.0	4.6	4.9
0 to 1 SD below (66)	57.3	62.4	59.5	54.6	54.6	55.9	57.1	58.5	54.4	59.0	62.9	62.4	62.9	63.0	69.2	54.2	52.5	60.0	58.1	59.3	56.0
0 to 1 SD above (25)	26.3	16.5	25.2	28.4	27.6	23.5	27.9	29.3	25.0	26.9	18.6	20.1	21.1	23.6	22.0	31.3	28.7	20.0	26.8	25.9	23.4
1 to 2 SD above (9)	7.1	6.7	6.0	7.4	8.8	17.6	9.7	4.9	4.4	4.7	9.6	5.8	6.3	6.5	1.1	6.1	8.7	6.7	6.2	6.6	9.9

* Standard deviations above or below mean factor score.
* Number of schools in category.

Table 6 (continued)

Characteristics	Total	Undecided				Ob/Gyn			Surgery			Primary Care			Other			No Change			
		To From Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
Emphasis on Graduate Medical Education (continued)																					
2 to 3 SD above (4)	3.2	3.1	2.9	3.8	3.0	0.0	1.9	0.0	4.4	3.3	1.8	1.6	3.6	2.2	2.2	3.3	4.2	1.7	2.4	2.7	4.7
Unknown (2)	1.4	1.2	1.3	2.3	0.5	0.0	0.0	0.0	0.0	1.5	0.0	0.5	0.6	0.2	0.0	0.5	2.6	0.0	1.4	0.9	1.0
Mean	.00	-.16	-.05	.07	.00	.01	.02	-.17	-.12	-.02	-.15	-.17	-.04	-.09	-.14	.03	.10	-.30	-.06	-.02	.08
27. Size/Affluence																					
1 to 2 SD† below (16)*	4.1	3.9	2.8	3.2	3.8	5.9	1.3	12.2	5.9	2.7	4.2	5.8	5.1	7.0	2.2	4.2	4.9	8.3	3.2	4.9	4.2
0 to 1 SD below (45)	32.8	35.3	36.2	31.0	33.5	38.2	36.4	46.3	41.2	32.6	40.1	38.1	37.8	37.3	35.2	33.6	30.6	43.3	33.8	31.0	31.3
0 to 1 SD above (38)	40.7	41.6	40.2	40.4	39.5	38.2	40.3	31.7	39.7	42.6	40.1	38.6	39.1	37.3	36.3	41.6	39.0	31.7	44.1	43.3	39.1
1 to 2 SD above (11)	13.1	11.0	12.1	15.1	12.6	14.7	13.0	7.3	10.3	13.8	8.4	10.1	10.2	9.1	19.8	12.6	14.8	15.0	11.1	11.9	13.3
2 to 3 SD above (4)	9.3	8.2	8.7	10.3	9.6	2.9	9.1	2.4	2.9	8.2	7.2	7.4	7.9	9.6	6.6	7.9	10.6	1.7	7.8	9.1	12.2
Mean	.43	.34	.41	.53	.42	.14	.40	-.09	.17	.45	.25	.26	.29	.23	.41	.36	.54	.09	.39	.39	.48
28. Selectivity																					
2 to 3 SD† below (4)*	1.2	2.0	1.6	0.6	0.8	0.0	1.9	2.4	2.9	1.1	1.8	1.6	1.8	3.1	1.1	1.4	0.6	11.7	1.8	1.3	1.6
1 to 2 SD below (13)	9.5	11.0	9.7	7.6	11.2	14.7	3.9	12.2	17.6	10.3	13.2	11.6	9.9	12.3	11.0	7.0	6.7	10.0	10.3	10.7	12.8
0 to 1 SD below (36)	32.1	34.1	33.1	28.7	33.9	44.1	40.3	51.2	41.2	30.5	38.9	39.2	37.3	40.1	29.7	29.9	28.6	31.7	31.0	34.0	29.4
0 to 1 SD above (41)	40.0	36.5	40.9	42.0	40.4	29.4	40.3	29.3	20.6	39.0	38.3	38.1	41.1	36.1	36.3	40.7	39.4	36.7	40.6	40.2	36.7
1 to 2 SD above (15)	12.5	12.2	10.8	15.2	10.9	11.8	9.7	2.4	13.2	13.6	6.6	5.3	7.1	6.5	17.6	15.9	18.0	6.7	11.1	9.7	15.6
2 to 3 SD above (1)	1.0	0.4	1.2	1.3	0.5	0.0	0.6	0.0	1.5	1.2	0.6	0.0	0.5	0.5	1.1	0.9	1.1	1.7	1.0	0.8	0.8
Unknown (4)*	3.7	3.9	2.7	4.6	2.2	0.0	3.2	2.4	2.9	4.1	0.6	4.2	2.3	1.2	3.3	4.2	5.6	1.7	4.2	3.3	3.1
Mean	.14	.05	.12	.27	.10	-.08	.10	-.36	-.15	.16	-.10	-.09	-.01	-.14	.19	.26	.30	-.34	.07	.05	.14

† Standard deviations above or below mean factor score.

* Number of schools in category.

Table 6 (continued)

29. Region and State of Legal Residence at Application	Total	Undecided				Ob/Gyn			Surgery			Primary Care			Other			NO CHANGE			
		Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
Region I	4.5	3.1	3.1	5.2	2.7	0.0	2.6	7.3	2.9	3.8	3.6	3.2	5.8	2.9	2.2	5.6	6.0	0.0	4.0	4.7	3.6
Maine	0.2	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.3
Vermont	0.3	0.4	0.1	0.3	0.3	0.0	0.6	2.4	1.5	0.0	0.0	0.5	0.3	0.0	0.0	0.9	0.6	0.0	0.2	0.1	0.5
Massachusetts	2.0	2.0	1.5	2.6	0.9	0.0	0.0	2.4	0.0	1.8	2.4	0.5	2.8	0.7	1.1	2.3	3.1	0.0	1.9	2.2	0.5
Connecticut	1.5	0.4	1.3	1.7	0.9	0.0	1.9	0.0	0.0	1.4	1.2	1.6	1.5	1.9	1.1	1.9	1.9	0.0	1.4	1.5	1.6
Rhode Island	0.3	0.0	0.0	0.5	0.1	0.0	0.0	2.4	1.5	0.3	0.0	0.5	0.3	0.2	0.0	0.5	0.3	0.0	0.4	0.3	0.5
New Hampshire	0.1	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3
Region II	18.5	18.0	18.8	20.4	12.7	23.5	23.4	14.6	5.9	19.9	10.8	12.2	17.8	13.7	14.3	19.2	23.3	10.0	20.9	17.0	16.9
New York	14.4	13.7	13.6	16.3	10.0	11.8	15.6	12.2	4.4	16.2	6.0	9.0	13.7	9.1	9.9	13.6	18.2	8.3	16.9	13.8	12.2
New Jersey	3.7	3.9	4.7	3.9	2.4	11.8	6.5	2.4	1.5	3.0	4.2	3.2	4.1	3.1	3.3	5.1	4.9	1.7	3.4	2.8	4.7
Puerto Rico	0.3	0.4	0.5	0.2	0.3	0.0	1.3	0.0	0.0	0.6	0.6	0.0	0.0	1.4	1.1	0.5	0.3	0.0	0.6	0.3	0.0
Region III	12.6	10.6	12.0	13.0	8.8	8.8	20.1	4.9	13.2	12.0	10.8	14.3	10.2	12.5	18.7	10.7	12.7	13.3	11.7	13.1	17.7
Pennsylvania	7.1	5.9	8.3	7.9	6.4	8.8	7.1	0.0	4.4	6.1	4.8	7.9	5.6	7.0	12.1	4.7	6.1	6.7	7.0	7.0	9.6
Delaware	0.2	0.0	0.1	0.3	0.3	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.5	0.2	0.0	0.0	0.3	0.3
D.C.	0.3	0.0	0.3	0.2	0.0	0.0	1.9	2.4	0.0	0.3	0.0	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.4	0.2	0.8
Maryland	2.3	1.1	1.2	2.4	1.1	0.0	3.2	2.4	2.9	2.9	1.8	3.2	1.6	1.2	3.3	2.3	3.2	3.3	1.2	2.5	3.1
Virginia	3.0	3.3	1.6	1.7	0.7	0.0	4.5	0.0	4.4	1.8	3.6	2.1	1.5	1.7	2.2	2.3	2.0	1.7	1.8	2.8	2.6
West Virginia	0.7	0.8	0.5	0.6	0.4	0.0	2.6	0.0	1.5	0.6	0.6	0.5	0.8	2.4	1.1	0.5	0.7	1.7	1.2	0.3	1.3
Region IV	12.2	14.1	13.4	11.1	13.4	11.6	8.8	9.8	26.5	16.2	12.6	12.7	12.2	11.3	16.7	12.1	9.5	25.0	13.1	12.8	10.2
Alabama	1.1	0.4	0.9	0.8	0.9	5.9	0.0	7.4	1.5	1.4	1.2	1.1	0.5	1.2	1.1	1.4	1.0	3.3	0.8	1.6	0.8
Florida	2.7	2.4	2.4	2.2	3.4	2.9	1.9	0.0	6.6	3.8	3.6	2.6	2.3	1.9	5.5	3.2	2.7	8.3	5.2	2.6	2.1
Georgia	1.8	4.7	1.6	1.7	1.8	0.0	1.9	0.0	7.4	2.3	1.8	1.6	2.3	1.4	3.3	1.9	1.5	5.0	1.8	1.6	1.3
Kentucky	1.7	1.2	2.3	1.5	1.1	0.0	1.1	4.9	2.9	2.3	1.8	3.2	2.0	1.4	4.4	1.4	1.9	3.3	1.4	1.6	1.8
Mississippi	1.0	1.6	1.7	0.8	2.2	0.0	0.6	0.0	4.4	1.2	0.6	0.5	1.0	1.2	2.2	0.9	0.6	1.7	0.6	0.8	1.0
North Carolina	1.5	2.0	2.0	1.6	1.6	0.0	0.6	0.0	1.5	1.1	0.6	2.1	1.8	1.4	1.1	0.9	1.0	3.3	2.6	1.5	1.6
South Carolina	0.9	2.0	0.5	1.2	0.9	0.0	0.0	0.0	0.0	1.1	0.6	0.0	1.0	1.2	0.0	1.4	0.3	0.0	0.8	1.1	0.5
Tennessee	1.4	0.0	1.9	1.3	1.5	2.9	0.0	2.4	0.0	2.1	1.2	1.6	1.3	1.4	1.1	0.5	0.4	0.0	1.9	1.6	2.3
Region V	20.6	19.6	21.5	19.1	23.6	14.7	19.5	22.0	13.2	22.1	21.0	24.3	21.3	24.0	20.8	18.2	19.3	20.0	19.7	21.9	16.0
Illinois	6.4	5.1	7.1	5.6	7.0	2.9	4.5	4.9	5.9	7.6	2.4	11.1	7.9	5.6	12.1	5.1	6.0	10.0	6.6	7.1	3.9
Indiana	2.3	3.9	1.7	2.6	2.7	0.0	3.2	0.0	0.0	2.6	3.6	2.1	2.8	3.6	1.1	2.1	1.3	0.0	2.0	2.0	2.6
Ohio	4.2	2.4	4.6	3.9	4.3	5.9	3.9	4.9	2.9	4.2	3.6	4.8	3.0	4.8	3.3	2.8	5.3	5.0	3.2	4.7	3.6
Minnesota	2.0	1.6	2.1	1.9	2.0	0.0	1.9	2.4	0.0	2.1	0.6	1.1	2.0	2.4	0.0	2.3	1.3	1.7	2.6	2.6	2.1
Michigan	3.8	5.5	3.2	3.3	4.5	5.9	1.3	7.3	4.4	3.8	7.2	4.8	3.0	5.5	3.3	4.2	3.5	3.3	3.4	3.8	4.4
Wisconsin	1.9	1.2	2.5	1.8	3.1	0.0	4.5	2.4	0.0	2.0	3.6	0.5	2.5	1.7	1.1	1.4	2.0	0.0	1.8	1.6	1.3

Table 6 (continued)

29. Region and State of Legal Residence at Application	Total	From: Undecided				Ob/Gyn			Surgery			Primary Care			Other			NO CHANGE			
		Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
Region VI	9.0	11.0	10.5	7.1	11.1	11.8	10.4	17.1	22.1	8.2	19.8	12.7	11.2	14.2	6.6	5.6	6.4	8.3	10.9	6.6	6.6
Arkansas	1.0	0.4	0.7	0.9	3.1	0.0	1.9	4.9	2.9	0.6	5.4	1.1	1.0	2.9	0.0	0.9	0.3	0.0	0.4	0.8	0.3
New Mexico	0.4	0.8	0.5	0.4	0.7	0.0	0.0	2.4	1.5	0.3	0.6	0.0	1.0	1.0	0.0	0.0	0.2	0.0	0.2	0.5	0.0
Oklahoma	1.1	0.8	2.7	0.7	1.1	0.0	1.3	0.0	0.0	1.7	2.4	2.1	1.0	1.2	0.0	0.9	0.6	0.0	1.2	1.1	0.8
Texas	4.7	6.7	4.8	4.0	4.2	8.8	4.5	7.3	12.2	4.4	7.8	6.5	6.3	6.3	4.4	2.8	3.6	6.7	5.8	4.9	4.4
Louisiana	1.7	2.4	1.9	1.2	2.0	2.9	2.6	2.4	3.5	1.2	3.6	1.1	1.8	2.9	2.2	0.9	1.6	1.7	3.2	1.3	3.1
Region VII	5.5	8.2	4.1	5.6	6.1	5.9	5.2	12.2	1.5	5.2	3.6	4.8	7.1	5.3	6.6	5.1	3.8	5.0	4.0	5.5	6.0
Iowa	1.3	1.2	1.5	1.5	1.5	0.0	1.3	0.0	0.0	1.2	0.6	1.6	1.8	1.4	1.1	0.0	0.5	1.7	1.2	1.6	1.8
Kansas	1.1	0.4	0.7	0.6	1.5	2.9	0.6	2.4	1.5	1.5	1.8	0.5	0.5	1.2	0.0	2.3	1.3	1.7	0.8	1.7	1.8
Missouri	1.7	5.5	1.2	2.4	1.4	0.0	3.2	2.4	0.0	1.4	0.0	1.1	2.3	0.5	5.5	1.9	0.6	1.7	1.2	1.2	0.8
Nebraska	1.3	1.2	0.8	1.1	1.9	2.9	0.0	7.3	0.0	1.1	1.2	1.6	2.5	2.2	0.0	0.9	0.7	0.0	0.8	2.0	1.6
Region VIII	2.8	2.4	2.5	1.9	2.7	5.9	1.3	4.9	2.9	2.3	4.2	4.2	1.5	5.3	2.2	4.7	3.2	0.0	2.8	1.4	3.1
Colorado	1.0	0.8	0.5	0.8	0.8	0.0	0.0	2.4	0.0	1.4	1.2	0.5	0.5	0.7	0.0	1.9	1.5	0.0	0.9	1.3	0.7
Montana	0.3	0.0	0.1	0.2	0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.3	0.0	0.4	0.5	0.0
North Dakota	0.5	0.4	0.7	0.4	0.7	2.9	0.6	2.4	0.0	0.2	0.6	0.5	0.0	1.4	0.0	0.5	0.2	0.0	0.2	0.5	0.5
South Dakota	0.3	0.0	0.4	0.2	0.4	0.0	0.0	0.0	0.0	0.2	1.2	1.6	0.3	1.0	0.0	0.0	0.2	0.0	0.2	0.2	0.9
Utah	0.8	0.8	0.7	0.4	0.5	0.0	0.0	0.0	2.9	0.6	1.2	1.6	0.3	1.7	2.2	2.3	0.8	0.0	1.2	1.0	1.0
Wyoming	0.1	0.4	0.1	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Region IX	9.2	6.7	7.2	8.3	10.7	11.8	7.1	2.4	8.8	8.2	9.6	7.4	8.9	8.4	5.5	13.6	12.3	11.7	8.0	8.8	10.3
Arizona	0.7	0.0	0.9	0.6	0.7	0.0	1.9	0.0	1.5	0.3	0.0	1.1	1.5	1.4	1.1	0.5	0.9	1.7	0.8	0.4	0.5
California	7.7	6.7	5.3	7.8	9.1	8.8	2.6	2.4	5.9	7.4	7.8	4.8	6.9	5.0	3.3	11.2	10.8	10.0	7.0	7.8	9.1
Hawaii	0.4	0.0	0.4	0.3	0.7	2.9	1.9	0.0	1.5	0.2	1.2	0.5	0.0	1.7	0.0	0.5	0.4	0.0	0.2	0.3	0.8
Nevada	0.3	0.0	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.6	1.1	0.5	0.2	1.1	1.4	0.2	0.0	0.0	0.3	0.5
Trust Territories	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Region X	2.4	1.2	2.3	2.7	3.2	0.0	1.9	2.4	0.0	1.2	3.6	2.6	2.3	2.2	2.2	1.9	2.2	1.7	3.2	2.4	2.4
Alaska	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.0	0.3
Idaho	0.2	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.3	1.7	0.4	0.1	0.3
Oregon	1.0	0.0	0.9	1.3	1.9	0.0	0.6	0.0	0.0	0.5	3.0	1.1	0.0	0.2	2.2	1.4	0.5	0.0	1.0	1.0	0.3
Washington	1.2	1.2	1.2	1.2	1.1	0.0	1.3	2.4	0.0	0.5	0.6	1.6	2.0	1.7	0.0	0.5	1.3	0.0	1.6	1.2	2.7
Foreign Graduates of U.S. Medical Schools	1.2	1.2	1.3	0.9	1.1	5.9	2.6	2.4	2.9	1.7	0.6	1.1	1.8	0.2	2.2	2.8	1.1	5.0	1.4	0.8	1.6
Legal Residence Unknown	1.7	3.9	3.2	4.0	3.9	0.0	0.0	0.0	0.0	0.2	0.0	0.5	0.3	0.0	0.0	0.5	0.3	0.0	0.2	0.1	0.0

a. Student Characteristics: Because the bivariate distributions in Table 6 are a combination of the distributions of application specialty choice in Table 4 and graduation specialty choice in Table 5, they are, in a sense, redundant. For example, the proportions of women (Table 6, section 2) with stable preferences for ob/gyn and of women who switched out of and into this specialty are all greater than the proportion of women in the total group simply because women prefer ob/gyn over other specialties - and herein lies the main value of these distributions. They confirm the consistency of relationships between certain of the student characteristics and specialty choice. There were no startingly contradictory findings such as would be the case if it were found, for example, that women constituted a very small proportion of those with stable preferences for surgery but a substantial proportion of those who switched from other specialties to surgery. The actual proportions of women in the groups choosing surgery were: 3.4 percent of those with stable preferences, 9.2 percent of those who were undecided, 0.0 percent of those who abandoned ob/gyn, 14.0 percent of those who abandoned primary care and 12.1 percent of those abandoning "other" specialties.

The unique information to be derived from Table 6 lies in the comparisons which can be made between the distributions of the characteristics of students with a stable interest in a particular major specialty-group versus the characteristics of students who develop an interest in that same specialty-group during medical school. Thus, we see that among students with stable preferences for ob/gyn the proportion of women (33.3 percent) was greater than the proportion of women in any of the three change-to-ob/gyn groups (which ranged from 2.9 percent who shifted from surgery to 25.7 percent who shifted from "other" application choices). With one exception, similar results were obtained for men and surgery, namely the proportion of those with stable preferences for surgery who were men (96.6 percent) was greater than the proportions of men who switched from undecided (89.7 percent), primary care (86.0 percent) and "other" (87.9 percent) choices. The single exception was for the group which switched from ob/gyn to surgery. Since they were all men, their proportion among this group is greater than their proportion among those with stable preferences for surgery.

The proportion of women among those with stable preferences for primary care (19.2 percent) was almost four times greater than their proportion among those who switched

from surgery to primary care (4.9 percent), but it was 14 percentage points less than that for women who switched from ob/gyn to primary care (35.7 percent). The proportion of women who decided against "other" specialties (21.6 percent) was about the same as that of women with stable preferences, but about 6 percentage points greater than that of women who came to primary care from an initially "undecided" position (15.4 percent). Thirty-nine percent of those who dropped out of ob/gyn for "other" specialties were women, while only 20.7 percent of those who decided against primary care, 17.2 percent of those who were originally undecided, 6.0 percent of those who decided against surgery and 17.7 percent of those with stable preferences for "other" specialties were women.

The racial/ethnic distributions (Table 6, section 3) of students who changed specialty preferences were also revealing when compared to those of students with stable specialty preferences. One third of the small group of students who had stable preferences for ob/gyn were black. This compares to blacks comprising 7.8 percent of those who chose the specialty after originally having been undecided, 13.2 percent of those who chose the specialty after having preferred surgery, 13.8 percent of those who originally preferred primary care and 3.3 percent of those who originally preferred "other" specialties. The proportion of Hispanics with stable preferences in ob/gyn (1.7 percent) was smaller than their total proportion (2.4 percent) and similar to their proportion amongst those who chose the specialty after originally having been undecided (1.2 percent) or having chosen primary care (1.1 percent). The proportions of Hispanics who dropped surgery and "other" specialties for ob/gyn (4.4 percent in both cases) was four times the proportion of Hispanics who took other paths to a choice of this specialty at graduation. Asian-Americans also showed a preference for ob/gyn, with a higher proportion of stable preferences for the specialty (3.3 percent) compared to their total representation (0.5 percent). They also switched to ob/gyn from primary care (3.7 percent) and from surgery (1.5 percent) in higher proportions, but not from "other" specialties (0.0 percent) or an "undecided" position (0.0 percent).

The racial distributions of those with stable preferences for surgery, of those who decided on surgery after originally having been undecided and of those who dropped primary care and "other" specialties for surgery were all similar to the racial distribution of all participants. However, almost one-fourth of those who

dropped ob/gyn for surgery were black, 62 percent were white, 9 percent were Hispanics and 6 percent were members of other minority groups (as compared to 5 percent, 89 percent, 2 percent and 3 percent respectively, of the total group).

Similarly for primary care, the racial distributions of those with stable preferences and of those who dropped surgery and "other" specialties deviated little from the total distribution. However, among those who dropped ob/gyn for primary care, there was a greater proportion of blacks and a smaller proportion of whites. Of those who were originally undecided but chose primary care at graduation, there were smaller proportions of all the minorities and a larger proportion of whites.

Almost twice the proportion of Hispanics than were in the total group had stable preferences or dropped out of surgery for "other" specialties. The proportion of whites who decided on "other" specialties after having been undecided was greater than their total representation, while those who dropped ob/gyn for "other" specialties was less than their total. Just the opposite was found for blacks - fewer came to "other" specialties after having been undecided or having chosen surgery or primary care and three times as many came to "other" specialties after having chosen ob/gyn.

In order to demonstrate the different comparisons which can be made with the data of Table 6, the foregoing discussion of the sex and racial/ethnic identity distributions associated with stability/change in specialty preferences has been more detailed than subsequent discussion will be. For the sake of brevity, only the more notable differences among the remaining variables in Table 6 will be pointed out.

The mean ages (Table 6, section 4) at which those with stable preferences for ob/gyn and those who switched to this field matriculated in medical school differed little, though they were somewhat older than the total group. Those with stable preferences for surgery matriculated at a slightly younger age than did the four groups which switched to surgery at graduation. Comparing the five groups which chose primary care at graduation showed that the group which had originally chosen surgery was youngest at matriculation followed by that which had been undecided, while the groups with stable preferences and which had originally chosen "other" specialties and ob/gyn were older. Except for the

group which had dropped surgery for "other" specialties, the groups which had switched to "other" specialties at graduation and the group which had stable preferences for "other" specialties were older at matriculation. The group which had dropped ob/gyn was oldest of all.

The mean number of years in medical school (Table 6, section 5) of those interested in primary care was similar for those with stable preferences, those originally undecided and those who had originally chosen surgery. However, inspection of the distributions showed that twice the proportion of those with stable preferences took only 3 years than had those who were originally undecided or who had chosen ob/gyn. The difference was less than double, but still greater when those with stable preferences were compared to those originally in surgery and "other" specialties. Seventeen percent of those with stable preferences for ob/gyn took 5 years to complete medical school while only 4 percent of those who were undecided, 9 percent of those who chose surgery and only 3 percent of those who chose primary care and "other" specialties took 5 years.

The mean MCAT Quantitative and Science subtest scores (Table 6, sections 7, 8) of those who chose primary care after having been undecided were the highest of all the groups, including that with stable preferences for primary care. The scores of the former group on the Verbal and General Information subtests (Table 6, sections 6, 9) were second highest, surpassed only by those with stable preferences for "other" specialties and also by those who had dropped "other" specialties for primary care on the Verbal subtest. Some of these same relationships held for GPA's (Table 6, sections 10, 11). For example, 56 percent of those who were undecided and then chose primary care had science GPA's of 3.4 to 4.0, while only 48 percent of those with stable preferences for primary care and 49 percent of the total group did. Almost 42 percent of those whose preferences for ob/gyn remained unchanged had overall GPA's of 2.0 to 2.99 while only 25 percent of those who had dropped "other" specialties, 22 percent of those who had dropped primary care, 29 percent of those who had dropped surgery and 25 percent of those who had been undecided had GPA's in this range.

Because the proportions of students from undergraduate colleges whose institutional control (Table 6, section 12) was unknown varied from one specialty-choice group to another, interpretation of these distributions is somewhat

problematic. It is evident, however, that equal proportions of graduates of private and of public undergraduate colleges had stable preferences for primary care, while a slightly greater proportion of those who dropped "other" specialties and of those who were undecided came from private schools. Also in spite of the "unknowns," a reversal of the public-private proportions can be seen between the group which dropped ob/gyn for "other" specialties (59 percent public, 37 percent private) and the group which dropped "other" specialties for ob/gyn (40 percent public, 57 percent private).

The size of a student's undergraduate institution (Table 6, section 13) appeared to have little, if any, relationship to specialty change/stability. Its selectivity (section 14), however, did show a relationship. The mean selectivity of the colleges attended by those with stable preferences for primary care was about average (4.6 on a scale of 9 where 9 is "most competitive"), while those of students who switched to primary care from being undecided or from a preference for "other" or surgical specialties were higher (5.1, 5.2 and 4.9, respectively.) Students who dropped ob/gyn for primary care came from somewhat less selective colleges (4.4).

Much more pronounced was the difference between the mean college selectivity of students with unchanged preferences for "other" specialties (5.0) and the selectivity of colleges of students who switched to "other" specialties (4.6 for those who were initially undecided, 3.7 for those who initially chose ob/gyn, 4.5 for those who initially chose surgery and 4.1 for those who initially chose primary care). While these figures may seem to differ little, it must be remembered that they are means or averages over all ratings of selectivity and as such de-emphasize differences. An examination of the proportions of only students from the "most selective" colleges who chose primary care at graduation, however, points up the differences - 7 percent had stable preferences and 8 percent had dropped ob/gyn, but 14 percent had dropped "other" specialties for primary care, 12 percent had been undecided and 11 percent had dropped surgery.

Students with stable preferences in "other" specialties had taken a smaller percentage of science course hours (Table 6, section 15) than had students who arrived at a decision for "other" specialties at graduation along other paths. The same was generally true for the five groups which decided on a primary care specialty at graduation.

About 13 to 14 percent more of the students who dropped ob/gyn for primary care majored in the biological sciences than did students with a continued interest in primary care, while 4 to 5 percent fewer of those who were undecided or who had originally preferred "other" specialties majored in the biological sciences compared to those with stable preferences (section 16).

Out of the twenty different specialty change/stability groups in Table 6, the group with stable preferences for surgery had the highest median parental income ($18,345) (Table 6, section 17). Moreover, it was almost double the lowest median income ($10,833), that for the group which chose surgery after initially having preferred ob/gyn. Those who chose surgery after initially having been undecided had the second highest median income, and those who chose surgery after having dropped primary care and "other" specialties had parental incomes which were less than the median. The median parental incomes of those who had stable preferences for primary care or who had dropped "other" specialties for this specialty were less than that for the total group ($14,550 and $14,848 vs. $15,463), while that of the group which dropped ob/gyn was a great deal less ($13,359). On the other hand, the median parental incomes of the groups which chose a primary care specialty after initially having been undecided or having preferred surgery were $1,500 and $700 more, respectively, than the median income for the total group.

Because parental income, education and occupation were related, these standings on income were generally similar to the standings on amount of parental education and degree of professionalization of parental occupation (Table 6, sections 18, 19, 20, 21). For example, it can be seen (in the italicized data for father's occupation) that 12 percent of those with stable interests in primary care and of those who dropped "other" specialties had fathers who were physicians, while 10 percent of those who dropped ob/gyn, 16 percent of those who dropped surgery and 15 percent of those who were undecided had physician fathers.

b. Medical School Characteristics: Not only did the distributions of medical school characteristics differ among the groups whose graduation specialty choices were in the four major specialty divisions (primary care, ob/gyn, surgery and "other"), but there were differences within each major division between students with stable preferences versus students with changed preferences. For example, 58

percent of the students with stable preferences for primary care had attended public medical schools, compared to 49 percent of those who dropped "other" specialties, 50 percent of those who dropped surgery and 52 percent of those who were undecided (Table 6, section 23). Fifty-five percent of those who dropped ob/gyn for primary care had attended public medical schools.

Similarly, there were differences in medical school control within the surgery major specialty division at graduation between those with stable preferences and those who had changed. Only 48 percent of those with stable preferences had attended public medical schools while 57 percent of those who switched from primary care and 56 percent of those who switched from ob/gyn had. Only 60 percent of the students with stable preferences in "other" specialties had attended public medical schools compared to 73 percent of those who changed to "other" specialties from ob/gyn and 66 percent each of those who switched from surgery and primary care.

Medical schools which are not research-oriented (Table 6, section 24), i.e., those with factor scores below the mean research orientation factor score, produced 32 percent of the students with stable preferences for primary care, 28 percent of those who chose primary care after having been undecided, 30 percent of those who dropped ob/gyn and surgery for primary care and 26 percent of those who dropped "other" specialties for primary care.

Of the students with unchanged preferences for ob/gyn 37 percent were products of non-research oriented schools including 10 percent from schools 2 to 3 standard deviations below the mean. No other group had such a large percentage from these schools which are essentially lacking in any research orientation. The group which dropped ob/gyn for "other" specialties had the next greatest percentage of students from these schools at the bottom of the research orientation distribution (5 percent). Two other groups with large proportions of students from schools below the mean on research orientation were those which chose ob/gyn after having chosen primary care (46 percent) and after having been undecided (42 percent).

The mean research orientation factor scores for those groups which dropped "other" specialties and which had initially been undecided (.37 and .33, respectively) were higher than those for any other group. (The mean factor score for the total group is .23.) Lowest in research

orientation were the medical schools of students with stable preferences for ob/gyn (-.08); of students who dropped surgery, primary care and an undecided position for ob/gyn (-.02, -.06 and +.05, respectively); of students who switched to "other" specialties after initially having chosen ob/gyn and surgery (-.03 and .00); and of students who switched to surgery after having chosen ob/gyn (.02).

Of the students with stable preferences for primary care a greater proportion had attended medical schools whose orientation to the practice of medicine (Table 6, section 25) was above the mean (63 percent) than did students who had originally preferred "other" specialties (56 percent), ob/gyn (57 percent), surgery (58 percent), and who had been undecided (59 percent). Only 52 percent of the students with stable preferences for ob/gyn had attended practice-oriented medical schools, while 64 percent of those who had switched from primary care, 60 percent of those who had switched from "other" specialties and 56 percent of those who had been undecided had attended practice-oriented schools.

The mean factor scores on practice orientation for the medical schools of the three groups which dropped an initial preference for primary care (.24, .12 and .19) and of the group with stable preferences for primary care (.14) were among the highest. The highest was that for the group which dropped ob/gyn for "other" specialties (.36), while those for the groups which dropped surgery and an undecided position for "other" specialties were also high (.19 and .20). Lowest in practice orientation are the medical schools attended by the groups which dropped "other" specialties for surgery and primary care (-.09 and -.06).

Only 10 percent of all students were graduates of schools with a large graduate medical education component (those with factor scores above the mean on graduate medical education emphasis) (Table 6, section 26), while 15 percent of the students with stable preferences for "other" specialties came from these GME-oriented schools. Of those who changed their preference to "other" specialties after originally having preferred ob/gyn, only 5 percent were from these GME-oriented schools. Eighteen percent of those who dropped ob/gyn for surgery or almost double the proportion in the entire group had attended schools which emphasize graduate medical education. Mean factor scores on GME emphasis ranged from +.10 to -.30 for the various specialty change/stability groups with the highest scores pertaining

to those groups which switched from "other" specialties and undecided to primary care and which had stable preferences for "other" specialties (.10, .07 and .08, respectively). The medical schools lowest on graduate medical education emphasis were attended by students with stable preferences for ob/gyn (-.30); by those who switched from undecided, primary care, "other" specialties and surgery to ob/gyn (-.16, -.17, -.14 and -.12, respectively); and by those who switched from ob/gyn and surgery to "other" specialties (-.17 and -.15).

A comparison of the size/affluence (Table 6, section 27) of the schools of students with stable preferences was revealing. While only 35 percent of those who consistently preferred surgery and 36 percent of those who preferred primary care and "other" specialties had attended schools which were low on this dimension, 52 percent of the students who preferred ob/gyn had done so. The graduation specialty choices of students from smaller, poorer medical schools who dropped ob/gyn differed widely: 44 percent went into surgery, 38 percent into primary care and 58 percent into "other" specialties. Regardless of the specialty they finally chose, 43 to 44 percent of those who dropped primary care were from schools which were low in size/affluence, while only 36 to 38 percent of those who dropped their preference for "other" specialties and 34 to 39 percent of those who had been undecided had attended such schools.

The mean size/affluence factor score for the medical schools of the total group was .43. Highest were those for the medical schools attended by students who switched from "other" specialties, undecided and surgery to primary care (.54, .53 and .45) and by those with stable preferences for "other" specialties (.48). Lowest in size/affluence were the schools attended by students who switched from ob/gyn to "other" specialties (-.09) and by students with continued interest in ob/gyn (.09).

Differences among the various specialty change/stability groups in the selectivity levels of their schools (Table 6, section 28) are highly informative. While 41 percent of all students had attended schools with factor scores below the mean on selectivity, 46 percent of those with stable preferences in primary care came from non-selective schools. Comparing the proportions of students who changed their preference to primary care and came from these schools showed further differences. Thus, while 36 percent of those who dropped their preference for "other" specialties and 37 percent of those who were undecided were

from non-selective schools, 46 percent of those who dropped ob/gyn and 42 percent of those who dropped surgery were.

The percentage of students with stable preferences for surgery from the less selective schools was similar to that of the total group from the less selective medical schools (43 percent and 41 percent, respectively), but the proportions from these schools of those who dropped surgery were quite different. Sixty-two percent of those who dropped surgery for ob/gyn were from the less selective medical schools compared to 54 percent of those who went into "other" specialties and only 42 percent of those who went into primary care. Comparison of the proportions of students who, at graduation, chose "other" specialties from the less selective medical schools showed that they constituted 44 percent of those with stable preferences and 46 percent of those who had been undecided, but 66 percent of those who had initially chosen ob/gyn and 54 percent of those who had chosen surgery. The proportions of those who abandoned "other" specialties also differed, with only 36 percent of those who went into primary care, 38 percent of those who went into surgery and 42 percent of those who went into ob/gyn from less selective schools.

Nine percent more of the students who chose primary care at application to medical school and stayed with that choice were from less selective medical schools than were students who had originally been undecided and then had chosen a primary care specialty. The same relationship held for students who chose primary care after having chosen "other" specialties, but 10 percent fewer of the latter group were from less selective schools than were those with stable preferences for primary care.

In terms of the mean factor scores on medical school selectivity, the least selective schools (-.36 and -.34) were attended by those students who switched from ob/gyn to "other" specialties and by those with stable interests in ob/gyn. The schools attended by those students who had dropped "other" specialties for primary care and for surgery and who had chosen primary care after having been undecided were the most selective (.30, .26 and .27).

In attempting to "make sense" of the many relationships between medical school characteristics and specialty change/stability without the aid of multivariate statistical techniques, it is helpful to realize that, for certain of the specialty change/stability groups, the medical schools which they had attended consistently had the highest or

lowest mean scores on the five factors. Let us consider the third largest specialty change/stability group in terms of absolute numbers (1,174 out of the 11,728 NIRMP participants), the group composed of students who switched from an initial preference for "other" specialties to a preference for primary care at graduation. When compared to the medical schools attended by other specialty change/stability groups, the medical schools attended by this group were consistently characterized by mean factor scores among the highest two or three on the dimensions of research orientation, emphasis on graduate medical education, size/affluence and selectivity. Medical schools attended by this group also had the second lowest mean score on practice orientation - which is consistent with the expected interrelationships of the five factors but nonetheless surprising. Thus, it seems safe to conclude that it was the medical schools which were oriented towards research and graduate medical education, which were larger, more affluent and more selective which "turned on" a good many students to primary care. This was further supported by the results for the largest group of NIRMP participants (3,133), those who were initially undecided and then chose a primary care specialty at graduation. Their medical schools were characterized by scores which were among the highest on the dimensions of research orientation, size/affluence and selectivity.

Diametrically opposite from the medical schools of students who chose primary care after having been undecided or after having chosen "other" specialties were the schools of students who had stable preferences for ob/gyn, who switched from primary care to ob/gyn and who dropped ob/gyn, surgery and "other" specialties. The schools attended by the latter four groups had the very lowest mean factor scores on research orientation, graduate medical education emphasis, size/affluence and selectivity and had one of the highest mean scores on practice orientation.

The foregoing has presented and discussed data which examine the relationship of specialty choice and specialty choice stability/change to various student background characteristics and medical school characteristics. The following section will present and discuss the characteristics of those hospitals which were preferred for GME-I residencies by students with different specialty preferences.

B. Residency Hospitals

The hospitals which offered the GME-I programs which were the first-choice of the 11,728 NIRMP participants numbered 505, while the total number of hospitals which offered GME-I places through the 1976 NIRMP was 655. An indication of the relative attractiveness of the 505 hospitals to students for a GME-I program was obtained for each hospital, as explained earlier, by taking the ratio of the number of students preferring a program offered by the hospital to the total number of places offered by the hospital in all of its programs. The indices thus obtained ranged from 4.75 to 0.03 and the average attractiveness was 0.751.

The types of hospitals preferred by students seemed to be fairly strongly associated with specialty preferences, but these relationships may as well have been a function of certain types of hospitals having offered more programs in certain specialties than did other types of hospitals.[29] The ownership of a hospital seemed to be the characteristic with the strongest relationship to specialty choice. The next characteristics, in terms of the strength of their relationship to specialty choices, were the size of the stipend paid by the hospital to residents and the size of its house staff, i.e., the total number of its residents.

From Table 7 it is evident that certain types of hospitals were more attractive to students than other types. University-owned hospitals were highly attractive, while hospitals with limited medical school affiliations and hospitals which are not affiliated were relatively unattractive (Table 7, section 2). State-owned hospitals (many of them owned by the state medical school) (section 3) are also attractive, while most of the V.A. and city-owned

[29]The two requirements which hospitals must meet in order to obtain COTH membership are (1) affiliation with a medical school and (2) the offering of GME programs in at least three of the following specialties: medicine, surgery, obstetrics, pediatrics, psychiatry and family practice. Most COTH-member hospitals offer programs in all of the first five listed specialties. Some offer programs in all 18 possible specialties.

Table 7

U.S. Medical School Graduates Participating in the 1976 NIRMP:
Characteristics of Hospitals Preferred for GME-I Residency and GME-I Specialty Choice

Hospital Characteristic	N*	Mean Hospital Attractiveness Index	GME-I Specialty Choice										
				Categorical or Diversified									Flexible
			Total	Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	
1. All Students†	505	0.751	11,728	1,573	4,728	663	1,128	386	1,888	66	235	205	856
2. Affiliation with Medical School§													
University owned	52	0.925	30.0	17.3	32.6	32.4	26.8	42.5	36.2	59.1	41.7	40.5	13.6
Major	122	0.762	31.3	15.0	33.3	25.6	45.7	29.0	34.5	13.6	28.5	34.1	32.4
Limited	50	0.534	5.9	5.2	6.5	7.4	3.0	2.8	5.0	0.0	4.7	3.4	11.6
Unaffiliated	11	0.607	2.0	1.0	2.4	2.4	0.9	1.3	1.6	3.0	1.3	2.0	4.0
Unknown‡	270	0.758	30.8	61.5	25.5	32.1	23.6	24.4	22.8	24.2	23.8	20.0	38.6
University owned			*43.4*	*44.8*	*43.8*	*47.8*	*38.1*	*56.2*	*46.8*	*78.0*	*54.7*	*50.8*	*28.1*
Major			*45.2*	*38.9*	*44.3*	*37.6*	*59.8*	*38.4*	*44.2*	*18.0*	*37.4*	*42.7*	*65.7*
Limited			*8.5*	*13.6*	*8.7*	*10.9*	*3.9*	*3.8*	*6.4*	*0.0*	*6.1*	*4.3*	*18.8*
Unaffiliated			*3.9*	*2.6*	*3.2*	*3.6*	*1.2*	*1.7*	*2.7*	*4.0*	*1.7*	*2.4*	*6.1*
3. Ownership§													
State	33	0.854	18.6	16.4	17.6	19.3	18.2	27.5	22.8	40.9	22.1	21.5	11.9
County	13	0.665	5.2	1.5	4.9	6.3	6.3	6.5	5.7	0.0	6.4	3.4	10.4
City	7	0.398	0.9	0.4	0.7	0.3	2.7	3.4	0.6	0.0	0.9	1.5	0.9
Church	31	0.588	4.9	5.0	4.5	4.2	3.0	2.3	4.3	9.1	3.8	7.3	11.8
Other non-profit	139	0.789	36.8	12.6	44.2	33.8	44.9	35.0	40.0	25.8	40.9	42.4	24.4
V.A.	8	0.253	0.6	0.4	0.8	0.0	0.2	1.0	0.6	0.0	0.0	0.5	0.9
Unknown‡	274	0.765	32.9	63.7	27.2	36.0	24.8	24.4	26.0	24.2	26.0	23.4	39.6
State			*27.8*	*46.2*	*24.2*	*30.2*	*33.9*	*36.3*	*30.0*	*54.0*	*28.9*	*26.0*	*19.7*
County			*7.8*	*4.2*	*6.7*	*9.9*	*5.3*	*8.6*	*7.7*	*0.0*	*8.6*	*4.3*	*17.2*
City			*1.3*	*1.1*	*1.0*	*0.6*	*3.6*	*4.5*	*0.8*	*0.0*	*1.1*	*1.9*	*1.5*
Church			*7.3*	*13.8*	*6.2*	*6.6*	*4.0*	*3.1*	*5.8*	*12.0*	*5.2*	*9.6*	*19.5*
Other non-profit			*54.8*	*34.7*	*60.8*	*52.8*	*59.0*	*46.2*	*54.1*	*34.0*	*55.2*	*55.4*	*40.4*
V.A.			*0.8*	*1.1*	*1.1*	*0.0*	*1.3*	*1.4*	*0.8*	*0.0*	*0.0*	*0.6*	*1.5*

* Number of hospitals.

† The figures in this row are frequencies rather than percentages.

§ Percentages in italics exclude non-respondents.

‡ Includes non-COTH hospitals.

Table 7 (continued)

Hospital Characteristic	N*	Mean Hospital Attractiveness Index	GME-I Specialty Choice										
				Categorical or Diversified									Flexible
			Total	Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	
4. House Staff Size†													
Less than 37	49	0.718	6.6	7.1	6.0	8.1	11.6	3.6	4.9	0.0	2.6	3.4	8.9
37 - 74	40	0.574	5.9	3.2	7.4	4.2	6.3	3.9	4.1	3.0	3.4	5.9	9.2
75 - 158	50	0.704	12.9	6.5	15.4	11.6	12.5	10.1	12.5	9.1	13.2	7.3	16.0
159 or more	66	0.915	36.9	16.7	40.2	38.5	34.9	50.3	46.6	56.1	51.9	58.5	19.4
Unknown‡	300	0.751	37.6	66.6	30.9	37.6	34.7	32.1	31.8	31.8	28.9	24.9	46.5
Less than 37			*10.6*	*23.3*	*8.7*	*13.0*	*17.8*	*5.3*	*7.2*	*0.0*	*3.6*	*4.6*	*16.6*
37 - 74			*9.5*	*6.5*	*10.7*	*6.8*	*9.6*	*6.9*	*6.0*	*4.4*	*4.8*	*7.6*	*17.2*
75 - 158			*20.7*	*13.4*	*20.3*	*18.6*	*19.1*	*14.9*	*18.4*	*13.3*	*19.6*	*9.7*	*29.9*
159 or more			*59.2*	*49.8*	*58.3*	*61.6*	*53.6*	*74.0*	*68.4*	*82.3*	*72.1*	*77.9*	*36.3*
5. Bed Complement†													
Less than 411	54	0.816	12.2	7.8	11.8	7.1	26.6	7.8	11.1	10.6	13.2	8.8	12.0
411 - 520	59	0.581	10.6	10.9	10.0	11.2	8.7	15.8	10.8	7.6	12.3	13.2	11.4
521 - 745	66	0.809	22.7	10.0	26.8	23.4	18.2	21.8	25.4	22.7	23.4	30.2	20.6
746 and more	56	0.762	23.8	9.9	25.9	26.2	23.0	30.3	29.8	34.8	27.2	27.8	17.4
Unknown‡	270	0.758	30.8	61.5	25.5	32.1	23.6	24.4	22.8	24.2	23.8	20.0	38.6
Less than 411			*17.6*	*32.3*	*15.8*	*10.4*	*34.9*	*10.3*	*14.4*	*14.0*	*17.3*	*11.0*	*19.4*
411 - 520			*15.3*	*29.2*	*13.4*	*16.4*	*11.4*	*20.9*	*14.0*	*10.0*	*16.2*	*16.1*	*18.7*
521 - 745			*32.8*	*26.9*	*36.0*	*34.4*	*23.8*	*28.6*	*33.9*	*30.0*	*30.7*	*37.8*	*33.5*
746 and more			*34.3*	*10.7*	*34.8*	*38.7*	*30.0*	*40.1*	*38.6*	*46.0*	*35.8*	*34.9*	*28.3*
6. Stipend Level†													
Less than $9,500	48	0.869	19.4	19.5	17.3	18.1	19.1	17.9	22.2	47.0	24.3	30.7	20.0
$9,500 to $10,500	54	0.646	11.8	6.2	13.5	10.9	13.1	14.5	11.8	0.0	12.3	9.8	11.4
$10,501 - $11,500	53	0.662	13.1	6.0	16.3	9.7	13.6	13.0	13.8	18.2	14.0	20.5	6.5
$11,501 or more	50	0.842	18.1	1.7	21.9	23.8	19.5	22.5	20.4	3.0	20.4	14.1	15.5
Unknown‡	300	0.751	37.6	66.6	30.9	37.6	34.7	32.1	31.8	31.8	28.9	24.9	46.5
Less than $9,500			*31.1*	*60.6*	*25.1*	*29.0*	*29.2*	*26.3*	*32.5*	*69.9*	*34.1*	*40.8*	*37.6*
$9,500 to $10,500			*18.9*	*10.1*	*19.6*	*17.4*	*20.1*	*21.4*	*17.3*	*0.0*	*17.4*	*13.0*	*21.4*
$10,501 to $11,500			*21.0*	*10.6*	*23.8*	*15.5*	*20.8*	*19.1*	*20.3*	*26.7*	*19.8*	*27.3*	*12.2*
$11,501 or more			*29.0*	*4.4*	*31.7*	*38.2*	*29.9*	*33.8*	*29.9*	*4.4*	*28.7*	*18.8*	*28.8*

* Number of hospitals.

† Categories are based on quartiles. Percentages in italics exclude non-respondents.

‡ Includes non-COTH hospitals.

Table 7 (continued)

7. Region and State of Preferred Hospital	N*	Mean Hospital Attractiveness Index	GME-I Specialty Choice									
			Total	Categorical or Diversified								Flexible
				Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	
Region I	45	0.945	10.1	4.0	13.1	6.2	12.9	10.6	11.2	0.0	7.7	10.2	3.3
Maine	3	2.000	0.5	2.2	0.3	0.2	0.1	0.8	0.4	0.0	0.0	0.0	0.0
Vermont	1	1.500	0.5	0.4	0.4	0.2	1.2	1.0	0.5	0.0	0.0	1.0	0.0
Massachusetts	24	1.056	6.1	0.8	8.6	2.9	8.2	3.4	7.3	0.0	5.1	7.3	1.3
Connecticut	12	0.602	2.3	1.0	2.5	2.9	3.0	5.2	2.2	0.0	2.1	2.0	2.0
Rhode Island	4	0.336	0.3	0.0	0.6	0.2	0.3	0.0	0.3	0.0	0.0	0.0	0.0
New Hampshire	1	1.125	0.4	0.0	0.6	0.0	0.3	0.3	0.5	0.0	0.4	0.0	0.0
Region II	64	0.596	12.1	5.4	16.8	7.4	10.2	18.1	11.8	1.5	7.7	8.3	5.7
New York	50	0.632	11.1	3.9	15.8	6.0	9.7	17.4	10.8	0.0	7.7	7.8	4.9
New Jersey	13	0.439	0.9	1.5	0.7	1.4	0.5	0.5	0.9	0.0	0.0	0.5	0.8
Puerto Rico	1	0.823	0.1	0.0	0.2	0.0	0.0	0.3	0.1	1.5	0.0	0.0	0.0
Virgin Islands	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Region III	76	0.619	11.1	12.5	10.8	12.2	12.3	13.7	10.1	18.2	11.5	11.7	7.7
Pennsylvania	42	0.681	6.3	7.1	5.8	6.2	7.2	7.3	6.0	7.6	8.1	9.3	5.0
Delaware	1	0.392	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5
D.C.	7	0.607	1.4	0.0	1.9	1.8	2.3	2.1	1.1	1.5	0.4	0.0	0.0
Maryland	13	0.386	1.5	0.9	1.6	3.2	1.9	0.3	1.1	0.0	1.0	0.0	1.2
Virginia	9	0.701	1.6	3.6	1.3	1.1	0.9	1.0	1.4	7.0	0.0	2.0	0.9
West Virginia	4	0.616	0.3	0.6	0.1	0.0	0.1	2.3	0.4	1.5	0.0	0.5	0.1
Region IV	82	0.580	16.4	18.1	14.9	22.5	14.4	15.5	20.7	15.2	17.4	19.5	10.3
Alabama	7	0.368	1.0	0.8	1.1	0.9	1.1	0.8	0.9	0.0	0.0	0.0	0.9
Florida	12	0.673	2.1	3.0	1.9	4.4	1.2	0.5	2.5	0.0	2.6	2.0	0.2
Georgia	7	0.803	1.9	1.3	2.1	3.0	0.4	0.5	2.8	0.0	2.1	2.4	1.5
Kentucky	5	0.841	1.3	1.5	1.0	1.7	1.1	2.6	2.4	0.0	0.9	1.0	0.0
Mississippi	1	0.675	0.4	0.6	0.4	0.8	0.6	0.0	0.3	1.5	0.4	0.0	0.4
North Carolina	6	1.125	3.3	3.7	2.7	4.5	4.2	3.9	3.6	7.6	4.7	5.4	1.3
South Carolina	6	0.405	0.8	3.1	0.3	0.5	0.3	1.0	0.5	0.0	0.4	0.0	0.8
Tennessee	10	0.510	1.3	0.8	1.3	0.6	1.4	1.0	1.3	3.0	2.1	3.4	2.3
Region V	85	0.633	13.0	16.8	11.1	11.8	12.6	10.4	12.9	37.9	11.9	13.2	17.9
Illinois	28	0.432	4.4	3.4	4.0	5.2	4.2	5.2	5.0	3.0	4.3	5.4	2.8
Indiana	12	0.920	1.6	3.7	1.0	2.1	1.2	0.8	1.2	0.0	1.3	3.4	3.0
Ohio	29	0.483	3.4	4.0	2.9	4.2	5.1	2.8	2.4	4.5	2.1	2.4	4.8
Minnesota	6	1.231	3.2	4.2	3.4	0.9	2.0	0.8	3.4	33.3	6.0	4.4	1.4
Michigan	26	0.465	3.1	2.8	2.3	4.2	2.7	3.6	4.3	0.0	1.3	2.4	6.0
Wisconsin	12	0.770	1.6	2.1	1.5	0.3	1.6	2.3	1.6	0.0	1.3	0.5	2.7

* Number of hospitals.

Table 7 (continued)

7. Region and State of Preferred Hospital	N*	Mean Hospital Attractiveness Index	GME-I Specialty Choice: Categorical or Diversified: Total	Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	GME-I Specialty Choice: Flexible
Region VI	33	0.757	8.2	8.4	6.0	12.1	6.1	6.7	9.5	9.1	8.1	6.8	16.7
Arkansas	3	0.826	0.8	1.1	0.4	0.5	0.5	1.3	0.5	0.0	0.9	0.5	1.7
New Mexico	1	0.975	0.3	0.9	0.3	0.3	0.0	0.5	0.3	0.0	0.1	1.0	0.0
Oklahoma	5	0.490	0.6	0.8	0.3	0.9	0.7	0.5	0.6	3.0	0.4	0.0	1.2
Texas	18	0.703	4.9	4.7	4.1	8.7	4.2	3.6	6.3	6.1	4.3	5.9	5.1
Louisiana	6	0.922	1.6	1.0	1.0	1.7	0.7	0.8	1.9	0.0	2.1	1.5	6.7
Region VII	28	0.782	4.9	7.0	4.7	6.3	3.9	5.4	4.6	1.5	6.4	9.3	2.3
Iowa	7	0.843	1.1	2.2	1.0	1.2	0.4	1.8	1.4	0.0	0.9	0.5	0.1
Kansas	4	0.953	0.9	2.0	0.6	1.1	0.5	1.0	1.1	0.0	0.4	1.0	1.0
Missouri	13	0.734	2.3	1.5	2.3	3.5	2.8	1.3	1.6	1.5	4.3	4.9	2.2
Nebraska	4	0.662	0.7	1.2	0.8	0.6	0.2	1.3	0.4	0.0	0.9	2.9	0.0
Region VIII	12	1.153	3.4	4.9	2.8	2.4	5.7	3.1	2.1	0.0	5.5	2.0	2.9
Colorado	7	1.394	2.2	2.3	2.0	2.4	4.3	2.6	1.5	0.0	5.1	1.0	1.4
Montana	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Dakota	1	0.600	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
South Dakota	2	0.636	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Utah	2	1.103	1.0	2.0	0.7	0.0	1.3	0.5	1.6	0.0	0.4	1.0	0.7
Region IX	66	0.972	16.2	14.2	15.7	17.0	17.0	14.5	13.7	12.1	19.6	14.1	27.1
Arizona	8	0.805	1.4	2.8	0.8	2.1	1.3	0.5	1.2	0.0	0.9	1.0	2.9
California	52	1.042	14.5	11.4	14.6	14.9	15.6	13.2	12.2	12.1	18.3	13.2	22.5
Hawaii	5	0.633	0.2	0.0	0.2	0.0	0.1	0.8	0.3	0.0	0.4	0.0	1.1
Nevada	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trust Territories	1	0.352	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Region X	14	1.792	4.5	8.7	4.0	2.1	4.8	1.8	2.9	4.5	4.3	2.9	6.1
Alaska	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idaho	0	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	5	1.023	1.3	1.0	1.6	0.8	1.2	0.3	0.4	0.0	0.4	0.0	3.5
Washington	9	2.219	3.3	7.8	2.5	1.4	3.7	1.6	2.5	4.5	3.8	2.9	2.6

* Number of hospitals.

hospitals in this study seemed to be so unattractive as to be almost avoided by the 1976 graduates.

A large house staff (Table 7, section 4) was very attractive to students when considering a hospital for a GME-I program and, while a very small house staff (less than 37) was not unattractive, those which numbered between 37 and 74 did seem to be quite unattractive. Somewhat the same held for bed complement (section 5) probably because both variables (house staff size and bed complement) are aspects of the general, overall size of the hospital. Hospitals with fewer than 411 beds and those with 521 to 745 beds were preferred while hospitals with 411 to 520 beds were quite unattractive, perhaps due to less popular specialty programs having been offered by hospitals of this size.

The stipend paid by a hospital (Table 7, section 6) seemed to be either a very important element of its attractiveness or a very unimportant element. The most attractive hospitals payed the lowest stipends, simply because they possess other attractions highly valued by first-year residents. Second most attractive in terms of stipend level were those hospitals which payed the highest stipends, while there was little difference in attractiveness to students between hospitals whose stipends fell into the categories just above and just below the mean.

Finally, where a hospital is located (Table 7, section 7) was related to its attractiveness. The 14 hospitals located in Region X, particularly the 9 located in the state of Washington, were the most attractive to students. Next most attractive were the hospitals located in Region VIII, in particular those located in Colorado and Utah. Least attractive were those hospitals located in Regions II and IV, with the exception of the six hospitals located in North Carolina. The latter were almost as attractive as those located in Colorado. Hospitals located in Maine, Vermont, Massachusetts, New Hampshire and Minnesota were also attractive to the NIRMP participant.

Does the type of hospital preferred by students vary with their specialty choices? The answer is unequivocally yes, though the reasons for the relationship are somewhat obscure. All of the following data provide strong support for the association between students hospital and specialty preferences.

While only 43 percent of all students preferred university-owned hospitals, 78 percent of those who chose

medical specialties, 56 percent of those who chose psychiatry and 55 percent of those who chose pathology preferred such hospitals (see italicized sections of Table 7). Only 22 percent of the students who preferred a flexible GME-I program, however, preferred such hospitals. The latter group of students was unlike any other group except those who preferred pediatrics in having preferred hospitals with major, limited and no affiliations. Sixty percent of those who chose pediatrics preferred hospitals with major affiliations, while only 39 percent of those who chose family practice and 38 percent each of those who chose ob/gyn, psychiatry and pathology preferred hospitals of this type.

"Other non-profit" was the single most preferred type of hospital ownership with 55 percent of the total group having preferred hospitals in this category. Nevertheless, the proportions which preferred this type of hospital varied widely depending on students' specialty choices. Thus, only 34 percent of those who chose medical specialties, 35 percent of those who chose family practice and 40 percent of those choosing family practice preferred "other non-profit" hospitals, whereas 61 percent of those who chose internal medicine, 59 percent of those who chose pediatrics and 55 percent of those who chose pathology and radiology did so. State-owned hospitals were preferred by only 28 percent of the total group, but by 45 percent of those students who chose family practice and 54 percent of those who chose medical specialties. Only 19 percent of the students who chose a flexible program preferred state-owned hospitals. Instead they chose programs in county-owned and church-owned hospitals and did so in double the proportions that students who chose other specialties did.

Choices of family practice, pediatrics and flexible programs were associated with hospitals in the lowest quartile of house staff size. Preferences for hospitals in the highest quartile of house staff size were associated with choices of medical specialties, radiology, psychiatry, and pathology. Hospitals with 75 to 158 house staff were preferred by 21 percent of all students, but by 30 percent of those who chose flexible programs and only 10 percent of those who chose programs in radiology.

Three times the proportion of students who chose pediatrics (35 percent) preferred hospitals with the fewest number of beds than did students who chose psychiatry (10 percent) and radiology (11 percent). The former proportion (35 percent) was at least double that for students who chose

surgery and medical specialties (14 percent each), internal medicine (16 percent) and pathology (17 percent). All of these groups preferred hospitals with the greatest number of beds in greater proportions than did other groups.

The proportion of students who chose medical specialties and preferred hospitals which paid the lowest stipends (69 percent) was at least twice that of most other groups. While not twice that of students who chose family practice (51 percent), radiology (41 percent) and flexible (38 percent) programs, it was still appreciably larger than these proportions. Students who chose ob/gyn, psychiatry and internal medicine were those who most preferred the hospitals which paid the largest stipends.

Finally, it can be seen that the students who chose certain specialties were more likely to choose hospitals located in certain regions than were other students. Thus, students who chose family practice were attracted to hospitals in Regions V, VII and X and noticeably avoided hospitals in Regions I and II. It was the students who chose a GME-I program in internal medicine who preferred the hospitals in Regions I and II and were not attracted to those in Regions V, VI and VIII. Those students intending to be ob/gyn residents preferred Region IV and VI hospitals and chose Region I, II, V, X hospitals less often than other students.

The proportion of pediatrics students who chose Region I hospitals was double that of other students. They also showed a slight preference for hospitals in Region VIII and a slight avoidance of hospitals in Regions IV, VI and VII. Except for a slight preference for Region IV and a slight avoidance of Regions IX and X, students who chose surgery were attracted to residency-hospitals in the different regions in approximately the same proportions as was the total group. Finally, those who chose flexible programs had a unique and pronounced pattern of hospital preferences. They preferred hospitals in Regions V, VI, IX and X and avoided those in the other six regions.

It seems fairly clear, then, that preferences for certain types of hospitals are associated with certain specialty preferences. What is not clear is whether these relationships are accounted for, not by the personal preferences of students with different specialty orientations, but by the differential distribution of programs in the various specialties among the different types of hospitals. The following section, on the

geographic mobility of medical students, is concerned, among other things, with the location of the hospital preferred for residency. Its findings are equally valid whether specialty preferences, GME-I program distribution or both are responsible for preferences for certain types of hospitals or for hospitals in certain locations.

C. Geographic Mobility

While the examination of specialty choice in terms of location of legal residence, location of undergraduate college and location of medical school which was reported in a previous part of this chapter included both a regional and state breakdown, the present analysis of geographic mobility is based only on a regional categorization. An analysis of migration by state would mean tables of 2,500 cells (50 X 50) thus presenting difficulties in interpretation as well as empty cells or cells with very small numbers for the less populous states.

The regional categorization employed is that of the Department of Health, Education and Welfare's ten administrative regions. Because the number of categories is sufficiently large, differences which might be erased by aggregating states into four quadrants (northern, southern, eastern and western) are maintained. The ten regions also reflect natural groupings of states in terms of contiguous borders, density of population and homogeneity of population characteristics which an analysis by individual state would blindly partition.[30]

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[30]Region I includes Maine, Vermont, Massachusetts, Connecticut, Rhode Island, and New Hampshire; Region II includes New York, New Jersey, Puerto Rico, and the Virgin Islands; Region III includes Pennsylvania, Delaware, D.C., Maryland, Virginia, and West Virginia; Region IV includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region V includes Illinois, Indiana, Ohio, Minnesota, Michigan, and Wisconsin; Region VI includes Arkansas, New Mexico, Oklahoma, Texas, and Louisiana; Region VII includes Iowa, Kansas, Missouri, and Nebraska; Region VIII includes Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region IX includes Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories, and Wake Island; Region X includes Alaska, Idaho, Oregon, and Washington (see Figure 9, page 134).

1. Regional Distributions

Table 8 presents three regional distributions of medical students, summarizing their location at three different points in their careers. Also included in Table 8 for comparison purposes are the regional distributions of medical schools and of the U.S. population. While certain regions have greater percentages of medical schools than do other regions, generally the number of schools is closely proportional to the population of the region. (It does not necessarily follow, though, that enrollments are proportional to population. However, the regional distributions of medical school acceptees and graduates do support this point, as discussed further on in this section.)

In comparing the distribution of students' legal residence at application with the distribution of medical schools it becomes apparent that the two are highly similar for regions VI through X, inclusive. They are also similar for regions I through V, but to a somewhat lesser degree. The high degree of association between the two distributions is largely a reflection of the strict residency requirements of the public medical schools which in 1972-73 took 89 percent of their student bodies from amongst state residents who applied.[31] Since regions I through IV have more private schools than do other regions and since private schools, on the average, took only 50 percent of their students from state residents,[32] it follows that the association between legal residence at application and number of medical schools would be less strong for these regions.

Except for region V, the regional distribution of graduates in Table 8 is almost identical to the distribution of medical schools, implying either that there is little variance in class size among all medical schools or, more realistically, that there are compensations within regions between schools with large enrollments and schools with small enrollments. The regional distribution of graduates is also almost identical to the regional distribution of

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[31] American Medical Association, "Medical Education in the U.S., 1972-73," J.A.M.A. 226(8): 909-915, November 19, 1973.

[32] American Medical Association (see footnote above).

Table 8

Regional Distributions of Medical Schools, Medical School Applicants and Graduates, Preferred Residency Hospital and U.S. Population

DHEW Region†	Percentage of Medical Schools§ in Region	Percentage of Medical Students* With Legal Residence at Application in Region	Graduating from Medical School in Region	Preferring a Residency Hospital in Region	Percentage of 1970 U.S. Population Residing in Region
I	8.1	4.5	6.2	10.1	5.8
II	13.5	18.5	14.2	12.1	13.7
III	14.4	12.6	15.9	11.1	11.4
IV	15.3	12.2	13.3	16.4	15.5
V	17.1	20.6	21.9	13.0	21.4
VI	10.8	9.0	10.0	8.2	9.9
VII	7.2	5.5	7.2	4.9	5.5
VIII	2.7	2.8	2.0	3.4	2.7
IX	9.0	9.2	7.4	16.2	11.2
X	1.8	2.4	1.8	4.5	3.0
Foreign		1.2			
Unknown		1.7			

* N = 11,728 NIRMP participants.

† Region I includes Maine, Vermont, Massachusetts, Connecticut, Rhode Island, and New Hampshire; Region II includes New York, New Jersey, Puerto Rico, and the Virgin Islands; Region III includes Pennsylvania, Delaware, D.C., Maryland, Virginia, and West Virginia; Region IV includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; Region V includes Illinois, Indiana, Ohio, Minnesota, Michigan, and Wisconsin; Region VI includes Arkansas, New Mexico, Oklahoma, Texas, and Louisiana; Region VII includes Iowa, Kansas, Missouri, and Nebraska; Region VIII includes Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming; Region IX includes Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories, and Wake Island; Region X includes Alaska, Idaho, Oregon, and Washington.

§ N = 111 medical schools attended by 11,728 NIRMP participants.

students at application. Without additional evidence, however, one cannot draw the conclusion that most students attend medical schools in the region in which they reside. For example, the 8.5 percent of medical students residing in region I at application are not necessarily included in the 6.2 percent who graduated from schools in that region - although data to be presented later in this section will provide the additional evidence that mobility from region-of-residence to region-of-medical school is low.

It is the regional distribution of the hospitals in which graduating students preferred to take their first-year residencies which is most discrepant from the other two distributions which appear in Table 8. Again, the caution applies that the percentage for a particular region does not necessarily include the same people who either resided in the region at application or who graduated from a medical school in the region. A student who resided in a region before medical school and then attended medical school in the same region might be anxious to leave the region from the simple desire to get away and experience life in another part of the country. While prior exposure influences ultimate practice location, its relationship to the intermediate location of GME-I is not known and may, perhaps, for some students even be negative.

Another reminder is also in order here, namely, that this distribution is based on the location of the hospital offering the residency program most preferred by the NIRMP participant. It is not based on the location of the hospital to which he/she was actually matched. Furthermore, the regional distribution of hospital preferences is constrained by the number of hospitals in each region offering first year programs and the number of programs offered by each hospital in the region. In spite of this constraint, the location of the preferred hospital is a more valid sounding of ultimate location than the location of the matched hospital.

2. Regional Gains and Losses

By examining together the three percentage distributions of medical students' locations, an indication of regional gains and losses can be obtained. For example, Region I, which includes the six northeastern states, gained medical students. It not only graduated more than it had contributed on the basis of residence to the medical student population but it also attracted more first-year residents

than it graduated medical students. The result of this attractiveness of Region I for medical students and first-year residents is a ratio of 1.74 between percent of first-year residents and percent of the general population compared to a ratio of 0.61 for Region V, for example.

Region IV (composed of 8 southeastern states) showed a similar pattern of consistent gains from legal residence to medical school to hospital-residency. Region II (New York, New Jersey and Puerto Rico), however, showed the opposite trend with more medical students who had originated from the region than had graduated from medical schools in the region and more students graduating from regional schools than preferred regional residency-hospitals.

Regions III, V, VI and VII all showed gains in the proportion of medical students who had graduated from institutions in these regions from the proportions who had originated from the regions. Coupled with the fact that these four regions showed a percentage of first-year residents which was smaller than the percentage of medical students which they graduated or the percentage of legal residents at application which they contributed, it would seem that these regions not only contributed their own legal residents to other regions, but that they also educated students who intended to leave the region to become first-year residents in other regions. This all adds up to net losses for these regions, with Region V showing the greatest loss--almost 8 percent fewer first-year residents for the region than legal residents who entered medical school.

Regions VIII, IX and X all demonstrate an opposite pattern, namely having graduated fewer medical students than had originated from the region, yet having attracted first-year residents in numbers which exceed either the number of medical students graduated in the region or of legal residents who entered medical school from the region. In other words, these regions chalk up net gains. Region IX, which includes the states of Arizona, California, Hawaii and Utah, gained the greatest percentage of first-year residents over legal residents (7 percent). Although the percentage of first-year residents for Region X (which includes Alaska, Idaho, Oregon and Washington) was only 2.1 percentage points more than that of graduates, it represents an almost 100 percent gain in first-year residents over legal residents who entered medical school.

3. Regional Migration

It was earlier cautioned that without further evidence it could not be concluded that the results presented in Table 8 concerning the percentages of legal residents who entered medical school, graduated from medical school and preferred a residency hospital in each region necessarily included the same individuals. Tables 9, 10 and 11 present data which indicate that, to some extent, the conclusion that these distributions do include the same individuals is warranted.

Figures 7, 8 and 9 are graphic illustrations of the point, presenting the percentages of students for whom combinations of two of the three locations under consideration were in the same region. Figure 10 shows the percentages for each region of students who originated from, attended medical school in, and preferred a residency all in the same region.

a. Legal Residence to Medical School: Figure 7 shows in large type the percentage of medical students in each region whose legal residence at application was in the same region. These ranged from 41 percent in Region I to 90 percent in Region X. The results again document the strict residency requirements of the publicly-supported medical schools which nationally outnumber the private schools (66 to 48 in 1972). In Region I, however, where there are twice as many privately-supported schools (6) as there are publicly-supported schools (3), the percentage of medical students who originated from the region (41 percent) was much lower than that for any other region. It was, in fact, 24 percentage points lower than the next lowest percentage of medical students originating from the same region, that for Region III which was 65 percent.

Where did students from those regions with low percentages of "in-region" students attend medical school? The percentages in small type in Figure 7 show that the majority of students who originated from regions with low percentages of in-region students nevertheless attended medical schools in their region. For example, though only 41 percent of those who attended medical schools in Region I originated from the region, the region kept 57 percent of all of its legal residents who attended medical school.

On the other hand, Region X had the highest proportion of medical students who originated from the same region (90 percent); but, because it had places for less than 2 percent

Table 9

Geographic Mobility of the U.S. Medical School Graduates Participating in the 1976 NIRMP:
Region of Medical School and Region of Legal Residence at Application

Region of Medical School

Region of Legal Residence at Application	COUNT / ROW PCT / COL PCT / TOT PCT	REGION 1	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6	REGION 7	REGION 8	REGION 9	REGION 10	ROW TOTAL
UNKNOWN 0		11 5.8 1.5 0.1	23 11.6 1.4 0.2	26 13.1 1.6 0.2	31 15.7 2.0 0.3	44 22.2 1.7 0.4	22 11.1 1.9 0.2	20 10.1 2.4 0.2	2 1.0 0.9 0.0	16 8.1 1.8 0.1	3 1.5 1.4 0.0	198 1.7
REGION 1		294 57.1 41.0 2.5	64 12.3 3.8 0.5	70 13.4 4.4 0.6	20 3.8 1.3 0.2	34 6.5 1.3 0.3	12 2.3 1.0 0.1	9 1.7 1.1 0.1	0 0.0 0.0 0.0	13 2.5 1.5 0.1	2 0.4 0.9 0.0	522 4.5
REGION 2		208 9.6 28.9 1.8	1294 59.7 77.6 11.0	320 14.8 20.1 2.7	66 3.0 4.2 0.6	167 7.7 6.5 1.4	25 1.2 2.1 0.2	50 2.3 5.9 0.4	3 0.1 1.3 0.0	33 1.5 3.8 0.3	3 0.1 1.4 0.0	2167 18.5
REGION 3		47 3.2 6.5 0.4	75 5.1 4.5 0.6	1218 82.6 65.1 10.4	55 3.7 3.5 0.5	35 2.4 1.4 0.3	14 0.9 1.2 0.1	13 0.9 1.5 0.1	1 0.1 0.4 0.0	15 1.0 1.7 0.1	1 0.1 0.5 0.0	1475 12.6
REGION 4		16 1.1 2.2 0.1	15 1.1 0.9 0.1	54 3.8 2.9 0.5	1241 86.9 79.3 10.6	24 1.7 0.9 0.2	46 3.2 3.9 0.4	15 1.1 1.8 0.1	1 0.1 0.4 0.0	15 1.1 1.7 0.1	1 0.1 0.5 0.0	1428 12.2
REGION 5		50 2.1 6.9 0.4	57 2.4 3.4 0.5	56 2.4 3.0 0.5	33 2.3 2.1 0.3	2072 88.7 80.7 17.7	26 1.1 2.2 0.2	64 2.7 7.6 0.5	3 0.1 1.3 0.0	26 1.1 3.0 0.2	0 0.0 0.0 0.0	2418 20.6
REGION 6		9 0.9 1.2 0.1	6 0.6 0.4 0.1	12 1.1 0.6 0.1	21 2.0 1.3 0.2	13 1.2 0.5 0.1	934 87.2 81.4 8.2	16 1.5 1.9 0.1	2 0.2 0.9 0.0	14 1.3 1.6 0.1	0 0.0 0.0 0.0	1052 9.0
REGION 7		10 1.6 1.4 0.1	14 2.2 0.9 0.1	4 1.4 0.3 0.0	15 2.3 1.0 0.1	25 3.9 1.0 0.2	14 2.2 0.3 0.1	556 86.2 65.6 4.7	2 0.3 0.9 0.0	8 1.2 0.9 0.1	0 0.0 0.0 0.0	645 5.5
REGION 8		11 3.4 1.5 0.1	18 5.5 1.4 0.2	20 6.2 1.6 0.2	10 3.1 0.6 0.1	25 7.7 1.0 0.2	22 6.8 1.9 0.2	22 6.8 2.6 0.2	140 58.5 81.4 1.5	9 2.8 1.0 0.1	10 3.1 4.6 0.1	325 2.8
REGION 9		43 4.0 5.9 0.4	56 5.2 4.4 0.5	53 4.9 3.3 0.5	33 3.1 2.1 0.3	97 9.0 3.8 0.8	33 3.1 2.8 0.3	60 5.6 7.1 0.5	11 1.0 4.7 0.1	687 63.9 79.1 5.9	2 0.2 0.9 0.0	1075 9.2
REGION 10		5 1.7 0.7 0.0	12 4.2 0.7 0.1	5 2.0 0.4 0.1	3 1.0 0.2 0.0	19 6.6 0.7 0.2	5 1.7 0.4 0.0	13 4.5 1.5 0.1	11 3.8 4.7 0.1	20 7.0 2.3 0.2	190 66.4 90.0 1.6	286 2.4
FOREIGN 11		8 5.8 1.1 0.1	45 32.8 2.7 0.4	22 16.1 1.4 0.2	15 10.9 1.0 0.1	16 11.7 0.6 0.1	1 0.7 0.1 0.0	12 8.8 1.4 0.1	5 3.6 2.2 0.0	13 9.5 1.5 0.1	0 0.0 0.0 0.0	137 1.2
COLUMN TOTAL		723 6.2	1656 14.2	1870 15.9	1565 13.3	2574 21.9	1172 10.0	848 7.2	232 2.0	859 7.4	211 1.8	11728 100.0

Table 10

Geographic Mobility of the U.S. Medical School Graduates Participating in the 1976 NIRMS:
Region of Medical School and Region of Preferred Residency Hospital

Region of Residency Hospital

Region of Medical School	REGION 1	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6	REGION 7	REGION 8	REGION 9	REGION 10	ROW TOTAL
REGION 1	358 49.5 30.1 3.1	83 11.5 5.8 0.7	35 4.8 2.6 0.3	47 6.5 3.1 0.4	32 4.4 2.1 0.3	5 0.7 0.3 0.0	6 0.8 1.0 0.1	15 2.1 3.7 0.1	113 15.6 9.8 1.0	30 4.1 5.1 0.3	723 6.2
REGION 2	248 14.9 20.9 2.1	857 51.5 60.4 7.3	120 7.2 9.7 1.1	94 5.6 8.9 0.8	62 3.7 4.1 0.5	17 1.0 2.9 0.1	14 0.8 2.4 0.1	17 1.0 4.2 0.1	185 11.1 16.1 1.6	46 2.8 8.3 0.4	1664 14.2
REGION 3	214 11.8 14.8 1.8	225 12.3 15.8 1.9	872 46.6 67.0 7.4	152 8.1 12.9 1.3	102 5.5 6.7 0.9	30 1.6 5.1 0.3	14 0.8 2.4 0.1	23 1.2 5.7 0.2	196 10.5 17.3 1.7	37 2.0 6.6 0.3	1670 15.9
REGION 4	85 5.4 7.1 0.7	60 3.8 4.2 0.5	35 2.2 2.7 0.3	774 49.8 65.6 7.4	101 6.5 6.6 0.9	90 5.8 15.4 0.8	19 1.2 3.3 0.2	49 3.2 12.1 0.4	233 15.0 20.5 2.2	38 2.4 6.5 0.3	1565 13.3
REGION 5	152 5.9 12.8 1.3	110 4.3 7.7 0.9	118 4.6 9.1 1.0	445 17.2 28.3 4.3	1010 39.2 64.1 9.6	48 1.9 5.0 0.4	75 2.9 12.9 0.6	55 2.1 9.5 0.5	381 14.8 19.9 2.6	130 5.1 24.5 1.1	2574 21.9
REGION 6	29 2.5 2.4 0.2	225 19.4 15.7 1.9	26 2.2 2.0 0.2	97 8.3 7.5 0.8	48 4.1 3.0 0.4	706 60.6 44.8 6.0	55 4.7 9.5 0.5	41 3.5 10.2 0.3	165 14.2 8.6 1.4	30 2.6 5.7 0.3	1172 10.0
REGION 7	29 3.4 2.4 0.2	35 4.2 2.4 0.3	16 1.9 1.2 0.1	72 8.5 5.5 0.6	108 12.7 7.1 0.9	23 2.7 3.9 0.2	350 41.2 61.1 3.0	42 5.0 10.6 0.4	167 19.6 8.7 1.4	28 3.3 5.3 0.2	848 7.2
REGION 8	14 6.0 1.2 0.1	4 1.7 0.3 0.0	1 0.4 0.1 0.0	10 4.3 0.7 0.1	24 10.3 1.6 0.2	14 6.0 2.4 0.1	7 3.0 1.2 0.1	87 37.5 21.6 0.7	43 18.5 2.3 0.4	23 9.9 4.3 0.2	232 2.0
REGION 9	51 5.8 4.3 0.4	19 2.2 1.3 0.2	11 1.3 0.8 0.1	35 3.9 1.5 0.3	23 2.6 1.5 0.2	15 1.7 2.5 0.1	14 1.6 2.4 0.1	32 3.7 7.9 0.3	617 71.0 36.5 5.3	56 6.4 10.0 0.5	869 7.4
REGION 10	10 4.7 0.8 0.1	2 0.9 0.1 0.0	2 0.9 0.1 0.0	2 0.9 0.1 0.0	9 4.3 0.6 0.1	10 4.7 1.0 0.1	3 1.4 0.5 0.0	12 5.7 3.0 0.1	58 27.5 3.4 0.5	104 49.3 19.6 0.9	211 1.8
COLUMN TOTAL	1199 10.1	1420 12.1	1201 10.1	1723 14.4	1526 13.0	954 8.2	580 4.9	403 3.4	1048 10.2	270 4.5	11728 100.0

Table 11

Geographic Mobility of the U.S. Medical School Graduates Participating in the 1976 NIRMP:
Region of Legal Residence at Application and Region of Preferred Residency Hospital

Region of Legal Residence at Application	COUNT / ROW PCT / COL PCT / TOT PCT	Region of Residency Hospital: REGION 1	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6	REGION 7	REGION 8	REGION 9	REGION 10	ROW TOTAL
UNKNOWN	0	20 11.1 2.2 0.2	25 12.6 1.8 0.2	17 8.6 1.3 0.1	23 11.6 1.2 0.2	15 7.6 1.0 0.1	17 8.6 1.8 0.1	11 5.6 1.9 0.1	6 3.0 1.5 0.1	51 25.8 2.7 0.4	7 3.5 1.3 0.1	198 1.7
REGION	1	237 45.4 19.9 2.0	80 15.3 5.6 0.7	37 7.1 2.8 0.3	42 8.0 2.2 0.4	27 5.2 1.8 0.2	8 1.5 0.8 0.1	10 1.9 1.7 0.1	5 1.0 1.2 0.0	51 9.8 2.7 0.4	25 4.8 5.5 0.2	522 4.5
REGION	2	744 17.7 32.3 3.3	956 44.1 67.3 8.2	232 10.7 17.8 2.0	160 7.4 8.3 1.4	84 3.9 5.5 0.7	43 1.2 2.6 0.2	25 1.2 4.3 0.2	37 1.7 9.2 0.3	224 10.3 11.8 1.9	40 1.8 7.5 0.3	2167 18.5
REGION	3	148 11.1 6.4 1.4	113 7.9 8.1 1.0	748 53.7 57.5 6.4	137 7.1 7.1 1.2	80 5.3 5.2 0.7	29 3.0 5.0 0.2	17 1.8 3.0 0.1	10 0.7 2.5 0.1	139 9.4 7.3 1.2	32 2.2 6.0 0.3	1475 12.6
REGION	4	69 4.8 2.8 0.6	46 3.2 3.2 0.4	88 6.2 6.8 0.8	822 57.6 42.7 7.0	81 5.7 5.3 0.7	103 7.2 10.7 0.9	42 2.9 7.2 0.4	37 2.6 9.2 0.3	116 8.1 6.1 1.0	24 1.7 4.5 0.2	1428 12.2
REGION	5	143 5.9 11.7 1.2	88 3.6 6.2 0.8	42 1.7 3.2 0.4	501 20.7 26.1 4.3	1001 41.4 65.7 8.5	28 1.2 2.9 0.2	91 3.8 15.7 0.8	35 1.4 18.6 0.3	231 9.6 12.2 2.0	111 4.6 20.9 0.9	2418 20.6
REGION	6	20 1.9 1.7 0.2	17 1.6 1.2 0.1	23 2.2 1.8 0.2	92 8.7 4.8 0.8	35 3.3 2.3 0.3	848 81.6 67.6 5.9	45 4.3 7.8 0.4	39 3.7 9.7 0.3	106 10.1 5.6 0.9	27 2.6 5.1 0.2	1052 9.0
REGION	7	18 2.9 1.6 0.2	23 3.6 1.6 0.2	18 2.8 1.4 0.2	62 9.6 3.2 0.5	87 13.5 5.7 0.7	17 2.6 1.8 0.1	283 43.7 48.8 2.4	34 5.3 8.4 0.3	73 11.3 3.8 0.6	22 3.4 4.2 0.2	645 5.5
REGION	8	18 5.5 1.5 0.2	5 1.5 0.4 0.0	12 3.7 0.9 0.1	17 5.2 0.9 0.1	46 14.2 3.0 0.4	22 6.8 2.3 0.2	23 7.1 4.0 0.2	94 28.9 23.1 0.8	59 18.2 3.1 0.5	37 11.4 7.0 0.3	325 2.8
REGION	9	52 4.8 4.4 0.4	22 2.0 1.5 0.2	15 1.4 1.2 0.1	43 4.0 2.2 0.4	38 3.5 2.5 0.3	23 2.1 4.0 0.2	20 1.8 4.9 0.2	43 4.0 10.7 0.4	737 68.6 38.9 6.3	68 6.3 12.8 0.6	1075 9.2
REGION	10	18 6.3 1.5 0.2	3 1.0 0.2 0.0	6 2.1 0.5 0.1	8 2.8 0.4 0.1	16 5.6 1.0 0.1	9 3.1 0.9 0.1	5 1.7 0.9 0.0	21 7.3 5.2 0.2	76 26.6 4.0 0.6	124 43.4 23.4 1.1	286 2.4
FOREIGN	11	16 11.7 1.3 0.1	33 24.1 2.3 0.3	13 9.5 1.0 0.1	16 11.7 0.8 0.1	14 10.2 0.9 0.1	0 0.0 0.0 0.0	6 4.4 1.0 0.1	2 1.5 0.5 0.0	35 25.5 1.8 0.3	2 1.5 0.4 0.0	137 1.2
COLUMN TOTAL		1190 10.1	1420 12.1	1301 11.1	1923 16.4	1524 13.0	959 8.2	580 4.9	403 3.4	1898 16.2	530 4.5	11728 100.0

Figure 7

Percent of Medical Students in a Region Originating from the Same Region* and
Percent of Those Who Originated from a Region Attending Medical School in the Same Region†

* Percents appear in large type.
† Percents appear in small type.

Source: Table 9 of present study.

Figure 8

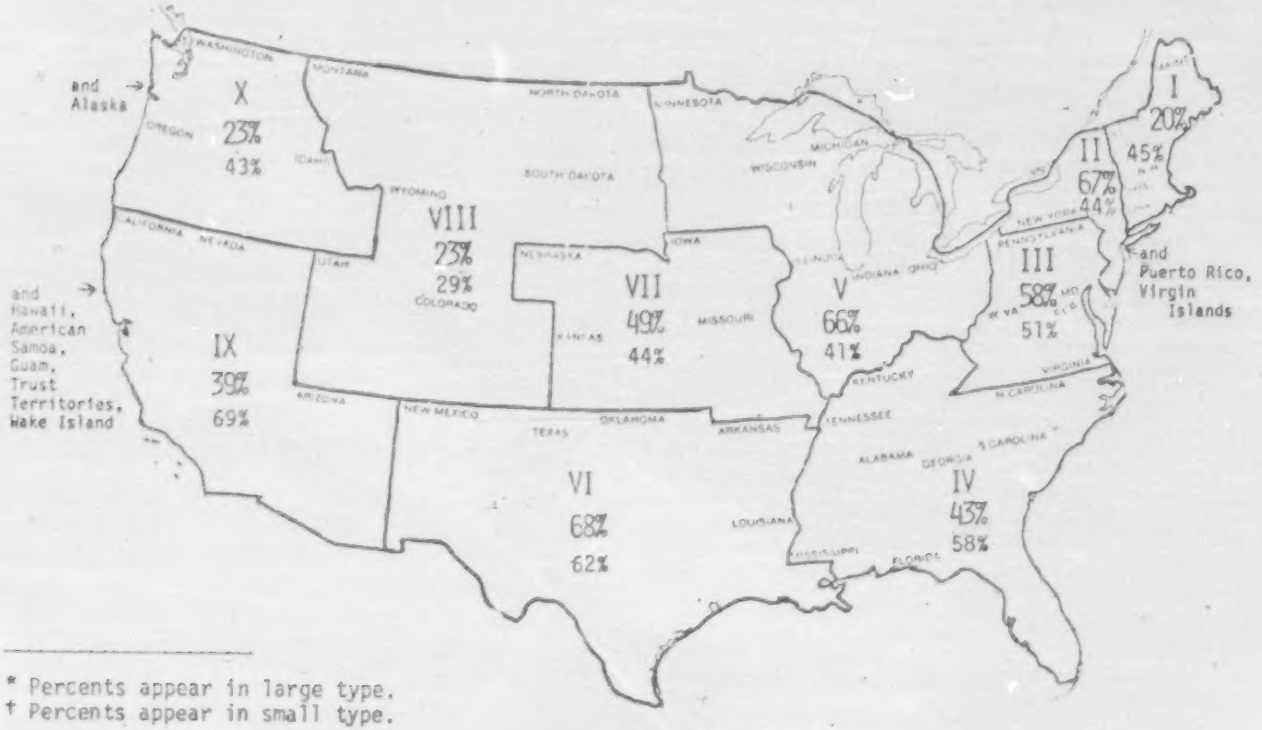
Percent of Those Preferring a First-Year Residency in a Region Who Graduated from Medical School in the Same Region* and Percent of Medical Students Graduating from Schools in a Region Who Preferred First-Year Residency in the Same Region†

* Percents appear in large type.
† Percents appear in small type.

Source: Table 10 of present study.

Figure 9

Percent of Those Preferring a First-Year Residency in a Region Who Originated from the Same Region* and Percent of Those Originating from a Region Who Prefer First-Year Residency in the Same Region†

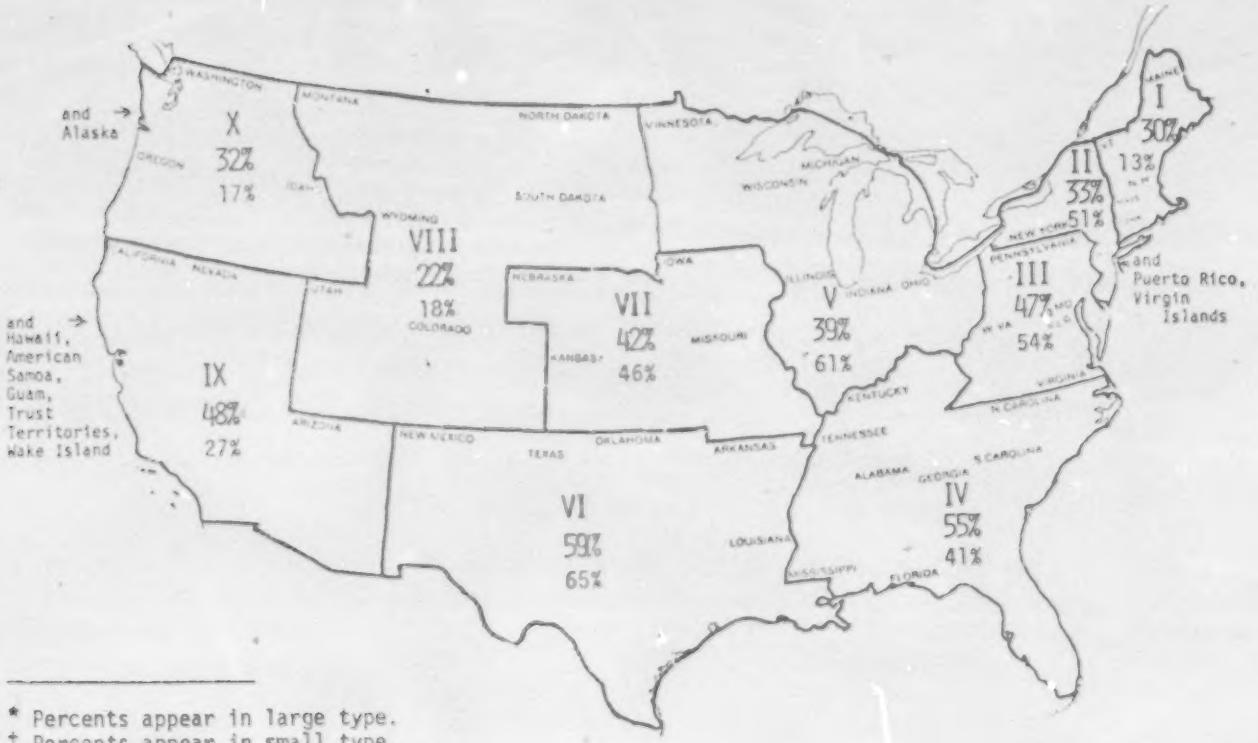


* Percents appear in large type.
† Percents appear in small type.

Source: Table 11 of present study.

Figure 10

Percent of Those Originating in a Region Who Attended Medical School in and Preferred First-Year Residency in the Same Region* and Percent of Those Preferring First-Year Residency in a Region Who Originated from and Attended Medical School in the Same Region†



* Percents appear in large type.
† Percents appear in small type.

Source: Unreported tabulations.

of the nation s entering first-year medical students, could keep only 60 percent of its legal residents who attended medical school. Similarly, Table 9 shows that because the percentage of all medical students who originated from legal residences in Region II was so high (18.5 percent), even though 78 percent of the students who attended medical school in Region II originated from that region, its legal residents constituted 28.5 percent of the students who attended school in Region I; 17.1 percent of students who attended school in Region III; 6.5 percent of those in Region V; and, in general, a good percentage of non-resident students who attended schools in other regions. This situation was also true for Region V from whence originated 20.6 percent of all medical students.

From this, it becomes apparent that the dynamics of legal residence-to-medical school migration are a function of several interacting factors - the number of entering class places in the medical schools of the region, the proportions of public and private medical schools in the region and the number of legal residents of the region accepted to medical school, both within and without the region. This is congruent with the findings of Lee, Rolph and Williams[33] who showed that, for applicants of equal "quality" who are not members of minority groups, the supply of public and private medical school places relative to the population of their state of residence is one of the most important factors in the probability of their being admitted to medical school.

Those students who did migrate from a region to attend medical school generally migrated to regions which were either contiguous or proximal to their region of origin. Table 9 shows that of the 43 percent of students from Region I who did not attend medical school in the region, over half (or 26 percent of all students from the region) enrolled in the schools of Regions II and III. Similarly, the small percentage of legal residents of Region III who did not attend Region III schools (17 percent) migrated more often to schools in Region II (5 percent) and also but less frequently to schools in Regions I and IV (3 percent and 4 percent respectively) than to schools in more distant regions (from 1.0 percent to 0.1 percent). However, Region

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[33]C. L. Lee, J. E. Rolph, and A. P. Williams, (see footnote on page 54).

VII, another region with a fairly low percentage of "in region" students (66 percent) and which sent only 14 percent of its residents to schools in other regions, drew many of its students from Region V (7.5 percent) which is contiguous, but also from Regions II (5.9 percent) and IX (7.1 percent) which are both distant.

b: Medical School to Preferred Residency Hospital: Although there are no selection requirements regarding geographic origin which constrain students' preferences for residency-hospitals, as is true of admission to medical school, there are certain factors which make it questionable to use the location of the preferred residency-hospital as much more than a rough approximation of location preference. First and foremost among these factors is the likelihood that both the specialty of the program and the general reputation of the hospital as a desirable place to take a residency have greater priority than its geographic location in the student's preference for a particular hospital. Another factor, one mentioned previously, is the constraint put on expressed hospital preference by the number of programs offered and the number of hospitals offering programs in different locations.

In spite of the above qualifications regarding the impurity of the hospital location variable, it is evident from Figures 8 and 9 that students either want to avail themselves of or do not resist the opportunity to migrate which is presented to them in the choice of first-year residency hospital. Thus, the mean percent of medical students who had originated from the same region (the average of the percentages which appear in large type in Figure 7) is 74 percent, while the mean percent of first-year residents who had graduated from a same region medical school (the average of the large type percentages in Figure 8) is only 48 percent. The mean percent of first-year residents who had originated from the same region (Figure 9) is 46 percent.

The evidence of Table 10 (from which Figure 8 is derived) shows that a good part of the regional migration which would occur between graduation from medical school and entrance into a first-year residency, if students were matched to their most preferred hospital, would be between geographically contiguous regions. This is especially true for those choosing a first-year residency in one of the four East Coast regions. Less than half of those who preferred a first-year residency in Regions I and IV had graduated from

a medical school in the same region (30 percent and 45 percent respectively). Over half (52 percent) of those who preferred a residency in Region I were from schools in the geographically contiguous or proximate regions, II, III and V. Similarly, of the 55 percent who preferred a residency in Region IV and came from a medical school in another region, over half (or 28 percent of all those who preferred a residency in Region IV) came from Region V which is contiguous.

In the Midwest, Region VII would receive a majority (62 percent) of its first-year residents from its own schools if students were matched to their first preference, but would also receive a fairly high percentage (13 percent) from Region V which is contiguous. Region VIII, however, would recruit most of its first-year residents (88 percent) from other regions probably because of its central location; five other regions are contiguous to Region VIII. The greatest single percentage (21 percent) would come from Region V, whose contribution of medical students to the first-year resident pool of Region VIII would be just about equal to that of Region VIII itself (22 percent).

In the two West Coast or Pacific regions, IX and X, most first-year residents would have graduated from medical schools in other regions (67 percent and 80 percent respectively) but, unlike the East Coast and to a lesser extent, the Midwest, the majority of first-year residents recruited from other regions would have been from medical schools in regions not contiguous to Regions IX and X. As Table 10 shows, Region V would be the largest contributor to both regions, providing 16 percent and 25 percent respectively of the first-year residents in the two regions. Region X would also receive another 11 percent of its residents from Region IX which is contiguous, while the latter region would receive 10 percent each from Regions II and III. Region IX would have the highest regional rate of retention of medical school graduates (71 percent), but the fourth lowest percentage of first-year residents coming from in-region medical schools (33 percent). In regards to first-year residents, it would be a "debtor" region having produced 869 M.D.'s but acquiring 1,898 first-year residents.

c. Legal Residence to Preferred Residency Hospital: Legal residents of Region IX were partial to their region for, as Figure 9 (and Table 11) show, 69 percent of them preferred a hospital in Region IX for their first-year residency.

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Again, as was true of those graduating from medical schools in the region, legal residents constituted only a small percentage - 39 percent of all those who wished to take a residency in the region. The situation is somewhat different in Region VI, where most of those who preferred the region had originated from the region (68 percent) and where most of those who originated from the region preferred their home region for a residency (62 percent). Diametrically opposite was the situation in Region VIII, where only 23 percent of all those who preferred a hospital in the region had originated from the region and only 29 percent of the legal residents of the region preferred the region for a first-year residency hospital. In Region II, two-thirds of all those who preferred a hospital in the region had been legal residents of the region, but less than half (44 percent) of the legal residents of the region preferred a hospital located in the region. The same situation held for Region V and the proportions are almost identical, 66 percent and 41 percent.

From these proportions of "natives" preferring their own region and of the preferences of "non-natives" for certain regions, it would seem that Region IX is one of the most attractive to all first-year residents. Regions X, I, and VIII also seem to be attractive, when evaluated in this way. In agreement with these findings are the mean hospital attractiveness indices for each region presented in Table 7 and discussed in the preceeding section of this chapter. Those hospitals located in Region X have the highest value on this index, followed by Regions VIII, IX and I in that order. Least attractive, according to the index, are Regions IV and II. An analysis of variance established that regional differences in the means of hospital attractiveness are highly significant ($F = 7.37$; $df = 9, 495$; $p > .005$). Also, significant differences in hospital attractiveness between groups of regions were pinpointed through a series of F-tests which showed that Regions I, VIII, IX and X are significantly different from the remaining six regions ($p > .005$) and that Regions I, VIII and IX are significantly different from region X ($p > .005$). Differences between other groupings were tested and found to be not significant at a minimum level of significance of .05.

d. Legal Residence to Medical School to Preferred Residency Hospital: In Figure 10 appear data which can be taken as reflecting the extent of students' commitment to the region of their origin. The data give the percentages of legal residents and of those who preferred a residency hospital in

each region for whom all three major episodes in their lives, i.e., legal residency, medical school and GME-I, would have been spent in the same region, if they were matched to the hospital of their choice. Taken in combination, the two sets of percentages point up distinct differences in the dynamics of mobility from region to region.

According to Figure 10, legal residents of Region VI were more committed to their region than were residents of other regions. This committment may be fortunate, since legal residents and graduates of other regions are not especially attracted to the region. Only 35 percent of those who preferred the region for a GME-I residency had either originated from or graduated from a medical school in another region. The dynamics of mobility for Regions II and V are similar to each other and different from that of Region IV. Twenty to 26 percent fewer of their legal residents had graduated from regional medical schools and preferred regional hospitals, while only 4 to 14 percent more of those who preferred hospitals in the region had originated from or graduated from schools in other regions.

The situation is quite different for Regions I, VIII, IX and X. At first glance, commitment seems to be much less than that of Regions IV and VI, given that only 22 to 48 percent of legal residents of these regions both attended medical school and preferred residencies in the region (as compared to 59 and 55 percent of Regions VI and IV, respectively). However, as was seen in Figure 7, these regions had the lowest percentages of residents who had attended regional medical schools; most likely, not because of lack of commitment, but because of the combination of the two factors, ratio of private to public medical schools in the region and residency requirements for admission to publicly supported schools. That legal residents and graduates of other regions are attracted to these four regions can be seen in the very low percentages of those who preferred these regions who both originated from and attended medical schools in these regions (13 to 27 percent), or, in other words, in the high percentages (87 to 73 percent) of those who preferred a residency in these regions who either originated from or graduated from the schools of other regions. While the comparison of percentages is revealing about the dynamics of mobility, it is important to remember that the absolute numbers upon which they are based differ substantially and should be borne in mind in any consideration of geographic distributions.

IV. SUMMARY AND CONCLUSIONS

This study has examined the career decisions of the U.S. medical school graduates who applied to the 1976 National Intern and Resident Matching Program (NIRMP). Their decisions are all implicit in the single bit of information pertaining to the GME-I program which they ranked highest in the NIRMP and are three in number. They are specialty choice, type of residency-hospital and geographic location.

A. Specialty Choice

The first decision, that regarding specialty choice, was examined from three different perspectives - specialty choice at application, specialty choice at graduation and stability/change in specialty choice. The influence of various characteristics of students' premedical backgrounds were examined from all three perspectives, while the influence of characteristics of students' medical schools were examined from the latter two perspectives. In order to distinguish the influence on students' specialty choices of characteristics of the medical school due to selective student input into the medical school from that due to characteristics of the medical school environment itself, the association between student characteristics as input and medical school characteristics were examined.

The results regarding specialty choice at application showed, first of all, that only 58 percent of the NIRMP participants had indicated preferences for specialties at application, 28 percent for primary care specialties, 12 percent for surgery and the remaining 18 percent for five other specialties. Some of the more notable trends between student characteristics and specialty choice prior to entering medical school were:

- Women more often preferred ob/gyn, pediatrics and public health; men preferred surgery and its specialties.
- Greater proportions of blacks preferred ob/gyn and public health; Hispanics, public health and basic medical science; whites, psychiatry, "other" specialties, unspecified specialties and no specialization.

- Those students who preferred psychiatry had the highest MCAT scores; while those who preferred ob/gyn and family practice, the lowest.

- Those who preferred family practice came from less selective, public undergraduate colleges while those who preferred psychiatry came from more selective private colleges.

- One-third of those who preferred psychiatry were "premedical" majors, while only 10 to 15 percent of those who preferred other specialties had been "premedical" majors.

- The parents of those students who planned to specialize in unspecified specialties and in surgery had the highest median incomes, while the parents of those students who preferred ob/gyn, basic medical science, and family practice and of those students who planned not to specialize had the lowest median incomes.

- The greatest proportion of students with physician fathers (20 percent) was among the group which preferred surgery, followed by those who planned to specialize in unspecified specialties (18 percent) and in internal medicine (17 percent). The smallest proportions of physician fathers were among students who planned to specialize in pediatrics (10 percent), ob/gyn (12 percent) or who planned not to specialize (12 percent).

- Greater proportions of those students who preferred family practice came from undergraduate colleges in HEW Regions V, VI and VII, while those who preferred ob/gyn came from institutions in Regions III, IV and VI. Students who preferred psychiatry more often came from undergraduate institutions in Regions I, II and III and those who preferred public health and basic medical science tended to originate more often from the undergraduate institutions of Regions I, II and IX.

- The legal residences of students who preferred family practice tended to be less often in Regions I, II, III and IX and more often in Regions V through VIII. Students who preferred psychiatry tended to have legal residences in Regions I, II, III and less often to have legal residences in Regions IV, V, VI and X. Greater proportions of those who preferred ob/gyn came from

Regions II, III, VI and VII and of those who preferred pediatrics from Regions II, III, V and IX.

Examination of specialty choices made at graduation via participation in the NIRMP showed that 40 percent of the participants preferred internal medicine; 16 percent, surgery; 13 percent, family practice; 10 percent, pediatrics; and the remaining 21 percent, the other five specialties and the general flexible GME-I program. Generally, the associations between student characteristics and graduation specialty choice were similar to those between student characteristics and application specialty choice:

- Women constituted greater proportions of those who chose pediatrics, ob/gyn, psychiatry and pathology, while men predominated among those who chose surgery.

- Greater proportions of whites were found among those who chose pathology, family practice, radiology, psychiatry, surgery and internal medicine; blacks, among those who chose ob/gyn and pediatrics; Orientals, among those who chose ob/gyn and radiology; Hispanics, among those who chose medical specialties, pathology, radiology and flexible programs; and "other" minorities among those who chose pediatrics and internal medicine.

- At graduation, students who chose pediatrics, surgery, and internal medicine tended to be the youngest, while those who chose psychiatry tended to be older.

- Students who chose psychiatry, pathology, radiology, ob/gyn and flexible programs tended, on the average, to have taken more years to complete medical school.

- High mean MCAT scores were most often found for the groups which chose psychiatry, pathology, radiology, medical specialties and internal medicine, while lower scores were most often found for those who chose ob/gyn, surgery and family practice.

- Higher-than-average GPA's were characteristic of those who chose pathology, radiology and internal medicine, while lower-than-average GPA's were characteristic of those who chose ob/gyn.

- Students who chose flexible, family practice and medical specialties programs more often had graduated from publicly-supported undergraduate colleges, while

those who chose pediatrics, psychiatry, internal medicine and surgery had more often graduated from private undergraduate colleges. The first three of the latter groups, i.e., students who preferred pediatrics, psychiatry and internal medicine, also came from undergraduate colleges which are more selective in their admissions.

- The median parental income of those students who chose medical specialties was notably higher than that of the group with the second highest median parental income, namely, the group which chose surgery. Students who chose internal medicine also tended to come from higher income backgrounds, while those who chose family practice and ob/gyn tended to come from families with the lowest median incomes.

- Greater proportions of the fathers of students who chose family practice and ob/gyn were in less professional occupations such as farmer/manager, craftsman or unskilled, while those of students who chose surgery, medical specialties, pathology and radiology were more often in professions including that of medicine.

- Greater proportions of those students who chose internal medicine had legal residences in Regions I, II, III; of those who chose family practice, in all regions except I and II; of those who chose pediatrics, in Regions I and IX; of those who chose medical specialties, in Regions III, V, VI and IX.

- Seventy percent of the students who chose family practice had attended publicly-supported medical schools as did 69 percent of those who chose flexible programs and 67 percent of those who chose medical specialties. Only 48 percent of the students who chose internal medicine had attended public medical schools.

- Greater proportions of those students who chose internal medicine, pediatrics, psychiatry, medical specialties and pathology had attended medical schools which are oriented towards research.

- Students who chose family practice, medical specialties and flexible programs were more often students in schools which are oriented towards practice.

- Medical schools with a large graduate education component more often graduated those who chose internal medicine, pediatrics, medical specialties and pathology.

- Smaller, less affluent medical schools produced greater proportions of those students who chose ob/gyn, surgery and flexible GME-I programs.

- Greater proportions of those students who chose internal medicine, pediatrics and pathology attended medical schools which are more selective, while students who chose family practice, ob/gyn, medical specialties and flexible programs attended less selective medical schools.

The analysis of consistencies in the types of students attending certain types of medical schools showed that:

- Relationships exist between the location of students' legal residences and the types of medical schools they attend as well as between the location of students' undergraduate colleges and the types of medical schools they attend. The latter relationships most likely result from a high correlation between the locations of students' legal residences and undergraduate colleges.

- The selectivity of students' undergraduate colleges is related to the type of medical school they attend.

- Specialty preference at application, MCAT scores, and medical school characteristics appear to be related.

- Sex, percent of science course hours, undergraduate major, parental income, education and occupation do not appear to be significantly related to the type of medical school attended.

Analysis of specialty choice stability/change showed that students who retained their preference for one of the four major specialty divisions from application to graduation constituted 28 percent of the NIRMP participants. Seventy percent of those who had chosen a specialty in the primary care major division at application chose a specialty in the same division at graduation; 21 percent of those who chose ob/gyn also did so, as did 36 percent of those who chose surgery and 20 percent of those who chose "other" specialties. The percentage of those who chose a specific specialty at both application and at graduation was 14

percent of all NIRMP participants. By specific specialty, this broke down into 26 percent each of those who preferred surgery and psychiatry at graduation also having preferred it at application, 20 percent of those who preferred pediatrics, 18 percent of those who preferred family practice, 10 percent of those who preferred internal medicine and 9 percent of those who preferred ob/gyn.

Obtained relationships of student characteristics and medical school characteristics to specialty choice stability/change generally confirmed the associations between characteristics of students and of medical schools and specialty choice at application and graduation as summarized above. There were, however, some notable differences between students with stable preferences for a particular specialty and those who changed over to a preference for that same specialty at graduation, they included the following:

- While one-third of those with stable preferences for ob/gyn were black, only 3 to 14 percent of those switching to this specialty were black. The proportions of those who switched to ob/gyn from initial preferences for surgery and "other" specialties who were Hispanic was four times greater than the proportions of Hispanics who took other paths to a choice of this specialty at graduation. A greater proportion of those who dropped ob/gyn for surgery and primary care were black than were those who chose other paths to surgery and primary care, with the exception of those who changed from undecided to primary care. There was a greater proportion of whites among the latter than among those who chose other paths to primary care.
- Students whose preference switched from surgery at application to primary care at graduation were a good deal younger when they matriculated in medical school than were those who took the other four possible paths to a decision for surgery at graduation. Students who were undecided and then chose primary care tended to have matriculated at an older age, than had those who had dropped surgery, while those who had dropped ob/gyn for "other" specialties were oldest of all.
- Twice the proportion of those with stable preferences in primary care took only 3 years to complete medical school than did those who were originally undecided or who had chosen ob/gyn at application.

- The mean MCAT Quantitative and Science subtest scores of those who chose primary care after having been undecided were higher than those of all the other change/stability groups, including the group with stable preferences for primary care. Furthermore, the Verbal and General Information subscores of the former were the second highest, surpassed only by those with stable preferences for "other" specialties and by those who dropped "other" specialties for primary care on the Verbal subtest.

- The proportions of students who chose primary care at graduation from the "most selective" colleges were: 7 percent of those with stable preferences, 8 percent of those who dropped ob/gyn, 11 percent of those who dropped surgery, 12 percent of those who were undecided and 14 percent of those who dropped "other" specialties.

- Students with stable preferences for surgery came from backgrounds with the highest median income, while students who switched to surgery from ob/gyn came from backgrounds with the lowest median income. The parental income of the latter group was approximately half that of the former group. Parents of the students who chose surgery after having been undecided had the second highest median income, while those of students who dropped primary care and "other" specialties for surgery had incomes less than that of the total group.

- Fifty-eight percent of students with stable preferences for primary care had attended public medical schools, while only 49 percent of those dropping surgery and 52 percent of those who were undecided had attended public medical schools. Forty-eight percent of those with stable preferences for surgery graduated from public medical schools, while 57 percent of those who switched to it from primary care and 56 percent of those who switched from ob/gyn did.

- Medical schools not oriented towards research graduated greater proportions of students with stable preferences for primary care and for ob/gyn and of those students who switched to ob/gyn after having chosen primary care or after having been undecided.

- A greater proportion of students with stable preferences for "other" specialties and of those who

dropped ob/gyn for surgery had graduated from medical schools with a large graduate education component.

- Regardless of the specialty they finally chose, 43 to 44 percent of those who dropped primary care were from medical schools which are low in size/affluence, while only 36 to 38 percent of those who lost their preferences for "other" specialties and 34 to 39 percent of those who had been undecided had attended such schools.

- Forty-six percent of the students with stable preferences for primary care had graduated from less selective medical schools, while 36 percent of those who dropped "other" for primary care and 37 percent of those who were undecided and then decided on primary care were from such schools. Forty-three percent of those with stable preferences for surgery had graduated from the less selective medical schools, while 62 percent of those who dropped surgery for ob/gyn and 54 percent of those who dropped surgery for "other" specialties had graduated from less selective medical schools.

B. Residency Hospitals

The type of residency hospital is the second decision regarding GME-I made by students who take one or more years of graduate medical education. By hospital type is meant a composite profile of the hospital's characteristics on such dimensions as affiliation, size, and remuneration of house staff. Since it was beyond the scope of the present work to develop such profiles, each hospital was characterized on the basis of seven dimensions which were treated as distinct and unrelated. The relative importance of each of the dimensions was estimated, however, through the construction of an index of "hospital attractiveness" and through examination of relationships between hospital type and specialty choice at graduation. Major findings can be summarized as follows:

- University-owned hospitals were highly attractive to students for a GME-I program, while V.A. and city-owned hospitals were relatively unattractive.

- Larger hospitals, i.e., those with more house staff and more beds, were more attractive.

- Hospitals paying the lowest stipends were most attractive, while those paying the highest stipends were second most attractive.

- Hospitals located in Regions X and VIII were the most attractive, those in Regions II and IV, the least attractive.

- Students who chose programs in medical specialties preferred university-owned hospitals in a greater proportion than did students who chose other programs. The smallest proportion of those who preferred university hospitals was among those who chose flexible programs.

- "Other non-profit" hospitals (which would include many university-owned hospitals) were preferred by 55 percent of all students, but by only 34 percent of those who chose medical specialties, 35 percent of those who chose family practice and 40 percent of those who chose flexible programs.

- Students who chose ob/gyn, psychiatry and internal medicine preferred the hospitals paying the largest stipends.

C. Geographic Mobility

Geographic location is the third decision which students make when they express their preference for a particular GME-I program. Geographic relationships were examined not only in terms of regional distributions but also in terms of regional migrations, i.e., from region of residence at application to region of medical school; from region of medical school to region of preferred residency hospital; from region of residence at application to region of preferred residency hospital; and, finally, from region of residence at application to region of medical school to region of preferred residency-hospital.

The major findings were as follows:

- The regional distributions of (a) medical schools, (b) applicants admitted to medical school and (c) medical school graduates were similar to the regional distribution of the U.S. population. The regional distribution of the hospitals preferred for GME-I residencies was somewhat dissimilar.

- Regions showing a net gain of students from admission to medical school to GME-I residency were I, IV, VIII, IX and X, while Regions III, V, VI and VII showed net losses.

- Because of residency requirements for admission to medical school, migration was lowest at the juncture between legal residence at application and medical school. The absence of such restrictions was reflected in the greater degree of migration at the juncture between undergraduate and graduate medical education.

- Region VI did the least amount of exchanging with other regions, Regions I, VIII and X the most.

Because this report has, essentially, been an inventory of a unique new data base, it has presented an exhaustive description of that data base in bivariate terms. The bivariate description has made it apparent that the factors related to career decision are multiple and that a logical sequel to the present study would be an multivariate analysis which takes into account the simultaneity of relationships between student and medical school characteristics and career choices.

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APPENDIX A

NUMBER OF NIRMP PARTICIPANTS AND APPLICANTS

GRADUATED BY EACH MEDICAL SCHOOL

APPENDIX A

Table A

Number of NIRMP Participants and Applicants Graduated by Each Medical School*

Medical School	Participants	Applicants
All Students	11,728	13,222
Alabama	92	123
Alabama, South	18	22
Albany	108	113
Arizona	58	73
Arkansas	110	118
Baylor	146	174
Boston	118	123
Bowman Gray	73	81
Brown	57	60
California, Davis	92	103
California, Irvine	66	72
California, Los Angeles	151	161
California, San Diego	62	68
California, San Francisco	142	160
California, Southern	106	113
Case Western Reserve	124	147
Chicago Medical	160	174
University of Chicago	104	111
Cincinnati	94	109
Colorado	113	125
Columbia	135	143
Connecticut	55	59
Cornell	96	104
Creighton	97	106
Dartmouth	31	34
Duke	98	113
Einstein	161	177
Emory	101	108
Florida	72	79
Florida, South	25	32
Georgetown	177	187
George Washington	131	140
Georgia	130	155
Hahnemann	145	160
Harvard	150	163
Hawaii	45	52
Howard	82	124
Illinois	266	281
Illinois, Southern	43	44
Indiana	239	263
Iowa	134	148
Jefferson	195	216
Johns Hopkins	114	126
Kansas	135	157
Kentucky	96	99
Loma Linda	79	122
Louisiana, New Orleans	106	129
Louisiana, Shreveport	38	41
Louisville	118	131
Loyola Stritch	135	169
Maryland	133	146
Massachusetts	23	26
Mayo	33	39

* See Methodology for definitions of participant and applicant.

APPENDIX A

Table A (continued)

Medical School	Participants	Applicants
Meharry	64	88
Miami	174	195
Michigan State	57	78
Michigan, University of	215	228
Minnesota	216	259
Mississippi	97	113
Missouri, Columbia	83	95
Missouri, Kansas City	17	29
Mount Sinai	71	74
Nebraska	132	143
New Jersey, Newark	122	130
New Mexico	46	59
New York Medical	189	196
New York, SUNY, Buffalo	111	138
New York, SUNY, Downstate	198	212
New York, SUNY, Stony Brook	33	39
New York, SUNY, Upstate	104	116
New York University	154	161
North Carolina	103	125
North Dakota	35	38
Northwestern	153	175
Ohio State	189	210
Ohio, Toledo	58	70
Oklahoma	124	134
Oregon	100	112
Pennsylvania, Medical College of	78	89
Pennsylvania State	69	77
Pennsylvania, University of	150	160
Pittsburgh	121	131
Puerto Rico	41	68
Rochester	91	96
Rush	44	52
Rutgers	50	54
Saint Louis	129	141
South Carolina	108	136
Stanford	68	75
Temple	160	173
Tennessee	119	154
Texas, Galveston	172	214
Texas, Houston	43	50
Texas, San Antonio	92	115
Texas, Southwestern	129	137
Texas Tech	38	42
Tufts	140	150
Tulane	128	139
Utah	84	98
Vanderbilt	77	85
Vermont	65	76
Virginia, Medical College of	126	141
Virginia, University of	103	117
Virginia, Eastern	17	22
Washington, Saint Louis	111	116
Washington, University of	121	137
Wayne State	201	232
West Virginia	69	74
Wisconsin, Medical College of	119	124
Wisconsin, University of	124	135
Yale	84	92

APPENDIX B

ROW PERCENTAGES OF SELECTED STUDENT CHARACTERISTICS BY INDICES OF SPECIALTY CHOICE

APPENDIX B

Table B-1

U.S. Medical School Graduates Participating in the 1976 NIRMP: Distributions of Student Premedical Background Characteristics for Specialty Preferences at Application as Row Percentages

Characteristics	Total*	Specialty Preferences at Application												
		Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Public Health	Basic Medical Science	Other	Plan to Specialize	Do Not Plan to Specialize	Undecided	No Response
1. All Students	11,728	8.1	6.9	2.5	8.0	4.2	11.9	3.6	3.2	4.9	9.7	5.2	17.0	14.9
2. Sex														
Male	9,761	8.3	7.1	2.0	6.8	4.1	13.6	3.0	3.4	4.8	9.2	5.3	17.6	14.8
Female	1,884	7.5	6.4	4.8	14.5	4.6	3.2	7.2	2.7	5.4	12.4	4.8	14.8	11.6
Unknown	83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
3. Racial/Ethnic Identity														
Afro-American/Black	598	8.5	9.2	10.5	11.2	4.3	12.0	8.4	2.8	3.5	6.7	3.7	8.4	10.7
American Indian	33	12.1	6.1	0.0	9.1	0.0	21.2	9.1	6.1	0.0	0.0	12.1	15.2	9.1
Asian-American/ Oriental	63	11.1	11.1	3.2	15.9	3.2	11.1	9.5	1.6	3.2	7.9	6.3	12.7	3.2
Caucasian/White	8,383	8.7	7.6	2.2	8.5	4.7	13.6	3.5	3.6	5.7	11.3	6.1	20.1	4.5
Hispanic-American	283	5.7	7.1	3.2	10.6	4.2	13.8	9.2	6.4	4.6	9.9	4.9	13.8	6.7
Other	347	11.0	10.4	3.7	11.8	2.6	14.4	4.6	3.5	6.3	8.9	4.3	12.4	6.1
Unknown	2,021	5.2	2.9	0.7	3.6	2.0	4.0	1.5	1.3	1.8	4.1	2.2	8.2	62.4
4. Parental Income†														
Less than $5,000	651	12.4	9.5	6.9	9.7	5.1	12.7	4.8	4.3	6.3	5.8	7.2	13.4	1.8
$5,000 to $9,999	1,500	11.3	7.7	3.7	10.5	5.1	12.7	4.4	4.7	5.5	9.3	7.7	15.5	1.9
$10,000 to $14,999	2,288	9.9	7.6	2.4	9.5	4.4	13.0	4.5	4.6	5.9	10.8	6.5	18.8	2.1
$15,000 to $19,999	1,551	7.2	8.4	2.5	9.8	3.9	13.2	4.3	3.9	5.9	11.9	5.7	21.7	1.7
$20,000 or more	3,175	6.5	7.9	2.3	7.7	5.3	16.1	3.7	2.6	5.3	12.7	5.1	21.1	1.6
Unknown	2,563	3.5	3.2	0.9	3.8	1.9	4.1	1.6	1.3	2.1	4.7	2.0	9.4	61.6

* The figures in this column are frequencies rather than percentages.

† Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970.

APPENDIX B

Table B-2

U.S. Medical School Graduates Participating in and Withdrawing from the 1976 NIRMP: Distributions of Student Premedical Background Characteristics for GME-1 Specialty Choice as Row Percentages

Characteristics	Total*	GME-I Specialty Choice: Categorical or Diversified: Family Practice	Internal Medicine	Obstetrics Gynecology	Pediatrics	Psychiatry	Surgery and Specialties	Medical Specialties	Pathology	Radiology	Flexible	Withdrew from NIRMP
1. All Students	13,222	11.9	35.8	5.0	8.5	2.9	14.3	0.5	1.8	1.6	6.5	11.3
2. Sex												
Male	10,955	12.5	36.5	4.7	6.7	2.7	15.6	0.5	1.7	1.6	6.4	10.9
Female	2,160	9.0	31.7	6.7	17.9	3.9	7.7	0.4	2.0	1.2	6.7	12.8
Unknown	107	12.1	36.4	2.8	5.6	3.7	7.5	0.9	0.9	1.9	5.6	22.4
3. Racial/Ethnic Identity												
Afro-American/Black	752	6.6	28.7	12.0	9.2	2.5	13.0	0.3	0.7	0.8	5.7	20.5
American Indian	43	25.6	18.6	7.0	7.0	0.0	14.0	0.0	0.0	0.0	4.7	23.3
Asian-American/ Oriental	76	7.9	32.9	13.2	7.9	2.6	5.3	0.0	1.3	2.6	9.2	17.1
Caucasian/White	9,362	12.7	36.0	4.5	8.2	2.9	15.0	0.6	1.9	1.7	6.3	10.5
Hispanic-American	339	10.9	30.7	3.8	8.8	2.7	11.2	0.9	2.7	2.1	9.7	16.5
Other	382	7.3	39.8	5.0	14.4	2.4	14.4	0.3	0.3	0.8	6.3	9.2
Unknown	2,268	11.2	37.8	4.7	8.7	3.5	12.7	0.4	1.9	1.3	7.1	10.9
4. Parental Income†												
Less than $5,000	760	12.2	30.9	7.2	8.6	3.2	12.5	0.4	2.4	1.4	6.8	14.3
$5,000 to $9,999	1,761	14.1	31.7	5.7	7.0	2.7	13.2	0.4	1.7	1.8	6.8	14.8
$10,000 to $14,999	2,602	14.1	33.3	5.0	8.6	3.0	13.7	0.4	1.8	1.3	6.7	12.1
$15,000 to $19,999	1,718	12.3	37.5	4.6	10.1	2.6	13.9	0.6	1.4	1.3	5.9	9.7
$20,000 or more	3,479	10.2	38.1	4.6	8.3	2.9	16.8	0.6	1.8	1.6	6.2	8.7
Unknown	2,902	10.2	37.8	4.8	8.7	3.1	13.2	0.5	1.8	1.7	6.6	11.7

* The figures in this column are frequencies rather than percentages.

† Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970.

APPENDIX B

Table B-3

U.S. Medical School Graduates Participating in the 1976 NIRMP: Distributions of Student Premedical Background Characteristics for Stability of Specialization Plans from Application to Graduation as Row Percentages

Characteristics	Total*	Undecided				CHANGE												NO CHANGE			
						Ob/Gyn			Surgery			Primary Care			Other						
		Ob/Gyn	Surgery	Primary Care	Other	Surgery	Primary Care	Other	Ob/Gyn	Primary Care	Other	Ob/Gyn	Surgery	Other	Ob/Gyn	Surgery	Primary Care	Ob/Gyn	Surgery	Primary Care	Other
1. All Students	11,728	2.2	6.4	26.7	6.3	0.3	1.3	0.3	0.6	5.6	1.4	1.6	3.4	3.5	0.8	1.8	10.0	0.5	4.2	19.7	3.3
2. Sex																					
Male	9,761	2.0	6.9	26.6	6.1	0.3	1.0	0.3	0.7	6.4	1.6	1.5	3.5	3.4	0.7	1.9	9.4	0.4	4.9	19.1	3.2
Female	1,884	2.9	3.7	25.3	6.7	0.0	2.9	0.8	0.1	1.7	0.5	2.2	2.9	4.6	1.4	1.4	13.4	1.1	0.9	23.6	3.6
Unknown	83	3.6	9.6	69.9	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Racial/Ethnic Identity																					
Afro-American/Black	598	3.3	5.5	13.7	3.2	1.3	4.7	1.2	1.5	5.7	1.0	4.3	3.3	3.3	2.5	2.3	10.4	3.3	3.8	21.6	3.8
American Indian	33	6.1	3.0	15.2	0.0	0.0	0.0	0.0	3.0	9.1	3.0	0.0	6.1	3.0	0.0	3.0	12.1	0.0	6.1	30.3	0.0
Asian-American/ Oriental	63	0.0	1.6	15.9	6.3	0.0	0.0	0.0	1.6	6.3	1.6	11.1	3.2	9.5	0.0	0.0	15.9	3.2	1.6	20.6	1.6
Caucasian/White	8,383	1.7	5.7	23.2	5.3	0.2	1.3	0.4	0.6	6.3	1.7	1.6	3.8	3.8	0.8	2.1	11.1	0.3	5.0	21.5	3.6
Hispanic/American	283	1.1	4.9	18.4	6.0	1.1	1.4	0.4	1.1	6.0	3.2	0.7	2.1	5.7	1.4	1.8	14.8	0.4	3.5	19.8	6.4
Other	347	1.7	4.0	18.4	3.2	0.6	1.4	0.6	0.9	8.1	0.6	1.4	3.7	4.0	0.3	2.6	11.5	1.2	4.9	28.2	2.6
Unknown	2,021	4.2	10.5	48.1	11.9	0.1	0.4	0.0	0.1	2.1	0.3	0.5	1.6	1.9	0.1	0.6	4.4	0.2	1.4	9.7	1.6
4. Parental Income†																					
Less than $5,000	651	1.5	2.8	12.6	4.1	1.4	2.0	1.1	1.2	6.5	1.1	2.0	3.7	5.1	1.2	2.8	21.2	2.5	4.0	28.1	5.2
$5,000 to $9,999	1,500	1.6	4.5	15.9	4.8	0.4	2.5	0.3	0.7	6.5	1.5	2.6	4.5	5.0	1.3	2.1	12.2	0.5	4.1	25.1	4.1
$10,000 to $14,999	2,288	1.6	5.2	20.5	4.5	0.4	1.4	0.3	0.9	6.1	1.7	1.9	3.6	4.5	0.9	2.1	12.3	0.3	4.3	23.4	4.1
$15,000 to $19,999	1,551	1.6	4.6	24.4	4.6	0.1	1.6	0.5	0.6	6.8	1.7	1.5	4.1	3.6	1.0	2.5	11.8	0.3	4.2	21.8	2.7
$20,000 or more	3,175	1.5	6.2	22.5	5.4	0.3	1.1	0.3	0.5	7.1	1.9	1.7	3.7	3.1	0.7	1.7	10.6	0.6	6.6	20.8	3.8
Unknown	2,563	4.4	10.8	48.9	11.6	0.0	0.4	0.2	0.1	2.0	0.5	0.5	1.6	1.9	0.2	0.9	4.5	0.2	1.5	8.5	1.3

* The figures in this column are frequencies rather than percentages.

† Combined gross parental income for previous year at time of taking the MCAT. Since most 1976 graduates entered medical school in 1972, they took the MCAT in 1971 and reported income for 1970.

APPENDIX C

CHARACTERISTICS OF STUDENTS WHO WITHDREW FROM THE 1976 NIRMP

Appendix C

Characteristics of Students Who Withdrew from the 1976 NIRMP

Students who withdrew from the 1976 NIRMP after making an initial application constituted 11 percent of all applicants. Withdrawal is herein defined as (a) resigning from the NIRMP after having signed and returned the initial agreement (this option must be approved by the dean of the student's medical school), (b) never having returned a rank order list of residency-program preferences and (c) "X-ing" all programs initially listed on the rank-order list initially submitted (or essentially withdrawing an application). The percentage distributions of the student and medical school characteristics of those who withdrew which are summarized below appear in the right-most column of Table 7 of the main body of this report.

Student Characteristics

Among those who withdrew from NIRMP, there was a slightly higher proportion of women than there was among all those who applied to the 1976 NIRMP. The proportions of blacks, American Indians and Hispanics among those who withdrew were almost twice the proportions of members of these three racial/ethnic groups among those who applied to the NIRMP. Those withdrawing tended to be older and to more often take either less than or more than 4 years to graduate from medical school than did all applicants. All four of their mean MCAT scores were lower, than those of all applicants. Their mean undergraduate science and overall GPA's were similar to those for the total group.

The non-participants were more often from smaller, less selective public undergraduate institutions. They took fewer course hours in science, less often having majored in the biological and humanities than did all applicants. Also, their socioeconomic status was lower than that of all NIRMP applicants--their mean parental income was lower than that of any one of the GME-I specialty choice groups ($13,303 versus $15,108 for all graduates) and their parents had fewer years of education and were in occupations which were less professional.

The only item on which non-participants did not differ appreciably from all applicants, besides those of GPA's, was that of specialty preference at application. The distribution of their specialty preferences is scarcely distinguishable from that of the total group of applicants.

Medical School Characteristics

Sixty percent of those who withdrew from NIRMP were from the 66 public medical schools. They were slightly more often from schools oriented not to research or to graduate medical education, but to practice. Those withdrawing were slightly more often from smaller, less affluent schools and, finally, they were much more often from less selective medical schools.